



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



THE STEPHENSON CENTENARY

LIBRARY OF THE
Leeds and Bradford Junior University

NOT FOR SALE

WITH ILLUSTRATIONS.

LONDON: E. W. ALLEN, AVE MARIA LANE.
NEWCASTLE: M. AND M. W. LAMBERT.

1881.



13

S8362.



Geo Stephenson

THE
STEPHENSON CENTENARY,

CONTAINING

*THE PROCEEDINGS OF THE DAY, THE PROCESSIONS
AND DECORATIONS,*

WITH THE

SPEECHES DELIVERED UPON THE OCCASION.

LIBRARY
ILLUSTRATED WITH VIEWS
UNIVERSITY

EDITED BY MR. WM. DUNCAN, NEWCASTLE.

(PUBLISHED BY AUTHORITY.)



LONDON: E. W. ALLEN, AVE MARIA LANE.
M. AND M. W. LAMBERT, NEWCASTLE-ON-TYNE.

2



H3814.

YASRU
ROPH. OROBAT OIA. BU
YTEREVNU

LIST OF VIEWS.

PORTRAIT OF GEORGE STEPHENSON.

COTTAGE AT WYLAM, WHERE GEORGE STEPHENSON
WAS BORN. From a Sketch by G. F. ROBINSON.

INTERIOR OF COTTAGE AT WYLAM. From a Painting by
RALPH HEDLEY.

HOUSE AT WEST MOOR. From a Sketch by G. F. ROBINSON.

HOUSE AT WILLINGTON QUAY, WHERE ROBERT
STEPHENSON WAS BORN.

MEDAL STRUCK FOR STEPHENSON CENTENARY.
Drawn by C. RICHARDSON.

MONUMENT AT NEWCASTLE. By LOUGH.

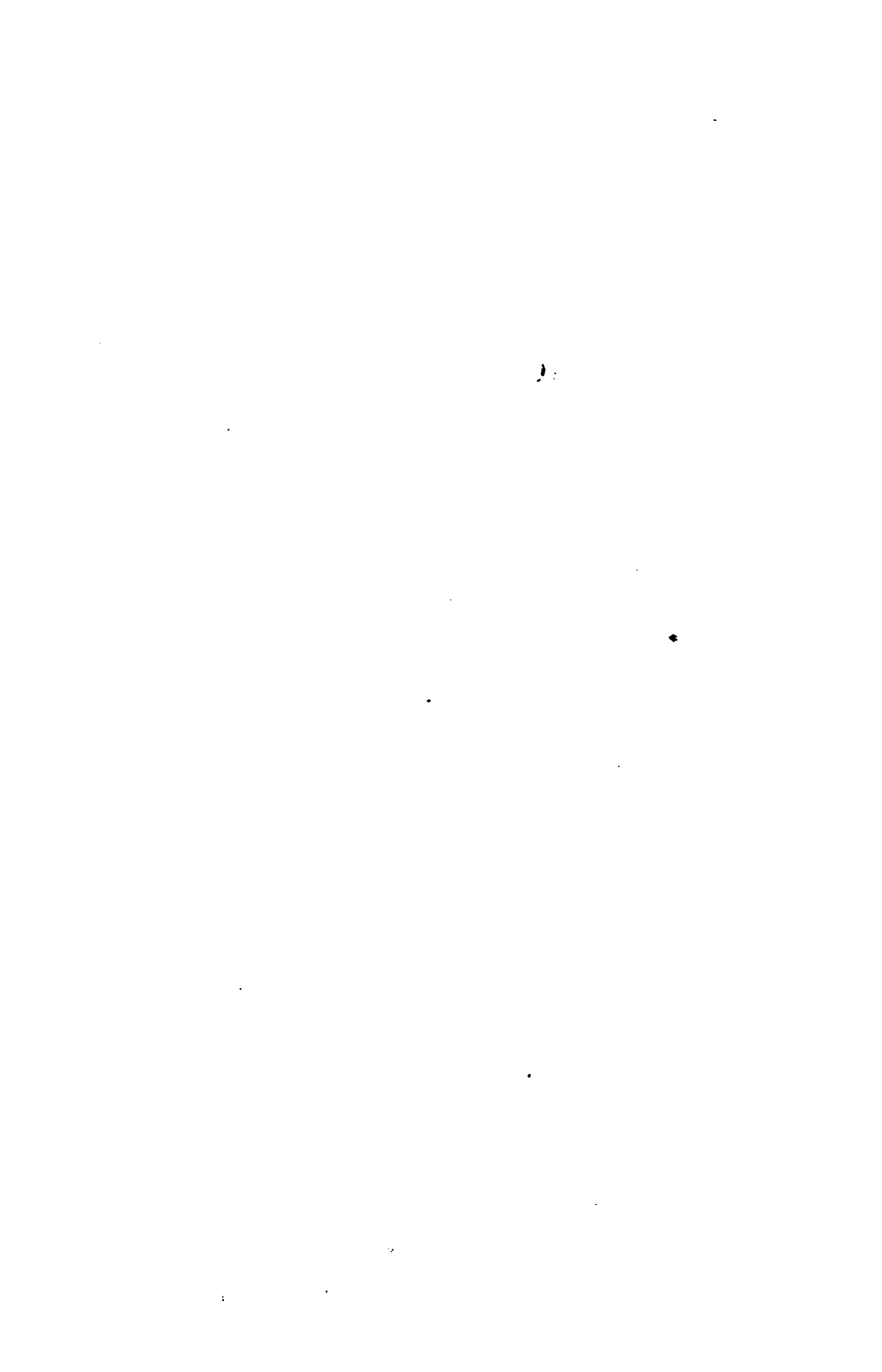
DRAWING OF KILLINGWORTH ENGINE, No. 2.

„ DARLINGTON Do.

„ ROCKET Do.

THE DECORATIONS at Messrs. MAWSON, SWAN, AND
MORGAN'S, Grey Street. From a Photograph by DOWNEY.

TAPTON HOUSE, CHESTERFIELD, THE RESIDENCE OF
GEORGE STEPHENSON, AND WHERE HE DIED.



INDEX.

	PAGE
Amalgamated Society of Railway Servants...	114
American Railways	69
Armstrong, Sir W.	7, 101
Batchelor, Rev. H.	76
Banquet in Assembly Rooms	72
Barkas, Mr. T. P.	5, 64
Bainbridge & Co., Messrs... ..	14
Belgium and the Centenary	9, 89
Belgium, Departure of Deputies	111
Bell, Mr. I. Lowthian	85
Bigg Market	15
Blackett Street East	15
Blyth and Tyne Station	15, 32
Bragg and Son, Messrs.	14
Browne, Mr. B. C.	59
Bruce, Rev. Dr.	76
Bryson, Mr. John	25, 60
Burnett, Mr. John	55, 60
Carnegie and Gullachsen, Messrs.	14
Centenary, History of the... ..	1
Centenary and Literature... ..	8
Centenary and Art	8
Central Station Decorations	17, 19
Chesterfield and the Centenary	78
<i>Chronicle, Newcastle Daily</i>	1, 8, 15
Clayton Street Decorations	15
College, Proposed Stephenson	7
Collingwood Street	13, 39
Committee, The	4
Congratulatory Telegrams... ..	78, 103
Cowen, Mr. Joseph, M.P.... ..	22, 27, 52, 59, 89
Coxon and Co., Messrs.	14
Crystal Palace, Festival at	114
Dale, Mr. David	98
Davison, Mr. G. T.	12
Davy, Mr.	64
Decorations, The... ..	10
Dunn and Co., Messrs.	14
Eldon Place, Stephenson's House in	16
Elliot, Sir George	97
Engine Competition, Decorative	32

Engine Driver, Death of an old	37
Engineers, The	51
Finney and Co., Messrs. Samuel	13
Fireworks, Display of	104
Franklin, Mr. Wm., Mosley Street... ..	13
Gateshead and the Centenary	19, 108
Germany	116
Glassey, Mr. Thomas	62
Grainger Street Decorations	11
" Processional Division	44
Grey Monument Decorations	19
Grey Street Decorations	12
Hamond, Alderman	95
Hare, Mr., Grey Street.	13
Harrison, Mr. T. E.	94
Harrison, Mr., Grey Street	13
Haswell, Mr. J. A.	69, 70
High Level Bridge Decorations	17
Hill and Co., Messrs. D.	11, 49
Holidays and the Centenary	10
Holmes, Mr.	102
Horses, Procession of Draught	6, 28, 31
Hotspur Club	114
Howat, Mr. W. J.	57
Howie, Mr.	62
Illuminations, Street	106
Italy	115
Jarrow, Mayor of	58
Laidler, Mr. G.	14
Laird, Mr. J. C.	5, 63
Leazes Park, Fête in the	103
Leopold, Invitation to Prince	9
Lin Tsai Tsan	101
Literary and Philosophical Society	15
Local towns	112
Locomotives, Procession of Modern	35
Locomotives, Old and Modern	69
Mosley Street Decorations	13
Market Street Decorations	14
Mawson, Swan, and Morgan, Messrs.	12
Mayor, The	2, 5, 6, 35, 73, 74, 75, 84, 102, 103
Mayoral Manifesto	110
Medals, Memorial	8
Miller, Mr.	63
Milling and Co., Messrs.	12, 49
Miners, The	60
Models, Exhibition of	67
Moor, Meetings on the	50
New Bridge Street	15
Newcastle Council and the Celebration	116
Nixon, Mr.	62

V.

Northumberland Street Decorations	...	...	...	...	...	14
Oak, Planting of Memorial	...	...	...	...	...	34
Palmer, Mr. C. M., M.P. ...	...	...	...	...	...	83
Patterson (Durham), Mr. ...	...	...	...	...	...	61
Pilgrim Street Decorations	...	...	...	...	...	13
Police and the People, The	...	...	...	...	...	106
Potter, Lieutenant-Colonel, C.B. ...	...	...	...	...	...	77
Prizes, Presentation of	...	...	...	...	...	109
Procession, Representative	...	...	...	...	...	38
Railway and General Traffic	...	...	...	...	...	107
Reid and Sons, Messrs., Grey Street	...	...	...	...	...	13
Relics, Exhibition of	...	...	...	...	...	66
Ridley, Sir M. W., M. P.	...	...	...	...	...	92
"Rocket" The	...	...	...	...	...	70
Rogerson, Mr. John	...	...	...	...	...	101
Rutherford, Rev. Dr.	...	...	...	...	...	25
Secretaries, Honorary	...	...	...	...	...	4
Sheriff, The	...	...	...	...	...	73, 77
Sopwith, Messrs. ...	...	...	...	...	...	11
Stephens, Mr. W. D.	...	...	...	...	...	21
Stephenson, Family Register	...	...	...	...	...	35
,, Monument Decorations	...	...	...	...	...	16
,, Scholarships ...	...	...	...	...	...	7, 20
,, Mr. George Robert	...	...	...	...	...	80
,, Mr. W. H.	...	...	...	...	...	101
,, Prize Essay	...	...	...	...	...	112
Stewart and Son, Messrs. William...	...	...	...	...	...	11
Stevenson, Mr. J. C., M.P.	...	...	...	...	...	100
Street House, Visit to	...	...	...	...	...	33
Sutton, Councillor William	...	...	...	...	...	15
Tennant, Mr. Henry	...	...	...	...	...	91
Theatre Royal Decorations	...	...	...	...	...	18
Thompson and Co., Messrs.	...	...	...	...	...	14
Town Hall Decorations	...	...	...	...	...	18
Trades, General	...	...	...	...	...	63
Tweddell, Mr.	...	...	...	...	...	64
Tyne Commissioners and the Celebration	...	...	...	...	...	111
Vicar of Newcastle	...	...	...	...	...	75
Webb, Mr. F. W.	...	...	...	...	...	95
West, Mr., Darlington	...	...	...	...	...	69
Westgate Street	...	...	...	...	...	15



E.
E.
E.

ISSUE 1711 NOVEMBER 1965

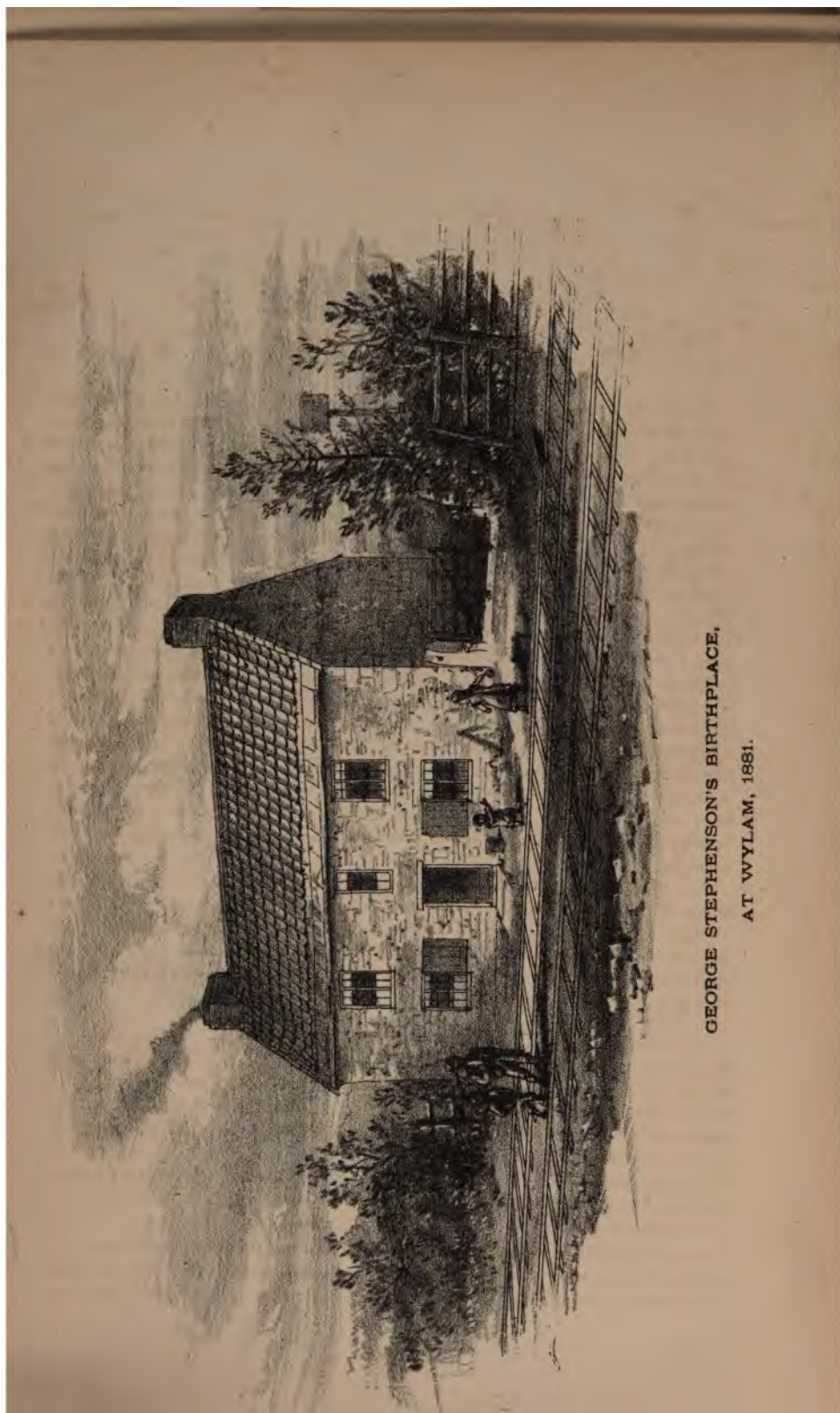
PREFACE.

In a belief that a permanent and readily accessible record of an event which aroused so much interest and popular fervour will be a not unwelcome possession, the present volume has had its origin. Laying little claim to originality, it is chiefly, with the generous consent of the proprietor and manager of the paper, a compilation from the very voluminous details of the recent centenary celebration which appeared in the *Newcastle Chronicle* on the 10th of June, 1881. As to the extent of these reports, and the multiplicity of men and minds engaged in their production, some idea may be formed from the statement that, to bring them within the compass of a reasonably-sized book, and to admit of the introduction of such new features as seemed to be called for, condensation and reconstruction have had largely to be resorted to. An additional attraction is hoped to be imparted to the work by the numerous views, with which its pages are interspersed, of scenes and incidents in the life of Stephenson, and some of which have been specially drawn for the occasion. To the leading gentlemen who took part in the auspicious proceedings, the opportunity has, as far as practicable, been afforded of revising their utterances; and grateful mention should be made of the countenance and coöperation which, during its progress, were extended to the undertaking by the Worshipful the Mayor (Ald. Angus), and by the leading honorary secretary, Mr. John H. Amos. With the assistance thus freely accorded, the editor has endeavoured to make the volume what he trusts it will prove to be—a not unworthy memorial of a day that will long redound to the honour and glory of Newcastle.

W. D.

NEWCASTLE-UPON-TYNE,
June, 1881.





GEORGE STEPHENSON'S BIRTHPLACE,
AT WYLAM, 1881.

GEORGE STEPHENSON.

Familiarity often leads to forgetfulness. So accustomed to the conveniences and comforts of railway travelling have mankind become, that, in their daily use, their author and founder is apt, if not to be overlooked, at least to be lightly thought of. By those only—a now rapidly narrowing circle—who have lived under a different *regime*, may the advantages of the present state of things be adequately appraised. A hundred years ago, the traveller from one part of the country to another was compelled to sit on the top of a jogging stage-coach, and move along the rugged roads at a comparatively sluggish pace. In summer, when the sun scorched and blistered the paint on the primitive vehicle, he was covered by the flying dust from the heated turnpike; and in winter, as he sat scarcely recognisable beneath multitudinous great coats and mufflers, he beat his feet against the foot-board, in order to keep them from freezing outright. Besides these personal discomforts, passengers were in danger of being waylaid by the thieves and robbers, who infested the highway, and of being assailed by the dread-inspiring words “Stand and Deliver!” All this is now changed. By means of the steam locomotive, we may speedily and comfortably traverse the whole of the island, from John o’ Great’s House in the north to Land’s end in the south, or cross from shore to shore the mighty continent; and by the same agency, it is possible to ascend, by spiral gradations, lofty mountains, even to the height of 4,000 feet above the level of the sea. It is by the genius of George Stephenson that this mighty revolution has been wrought.

Proud may Northumbria be that she has the honour of numbering such a man among her sons. In a small two-storied cottage, called High Street House, near Wylam, and a few miles west from Newcastle, the future engineer was born on the 9th of June, 1781. His descent was humble in the extreme. He boasted no aristocratic lineage, nor was it ever his pride to trace back his ancestors to the time of the Norman conquest.

* * * *qualis sit quisque parente*
Natus, dum ingenuus.

It is merit, not birth, that is the test of the man. His father, Robert Stephenson, or, as he was generally called, “Old Bob Stephenson,” was engineman at Wylam Pit, and worked, at the time of George’s birth, for a wage of 12s. per week—no great sum for a man to maintain a family in food and clothing. Notwithstanding “Bob’s” many cares, however, he was, according to tradition, a light-hearted, happy, contented being. Of the mother, Mabel Stephenson, little is known, except that she was, as would appear from the description of a pitman who worked with Bob, “A delicat’ body, and varry flighty.”

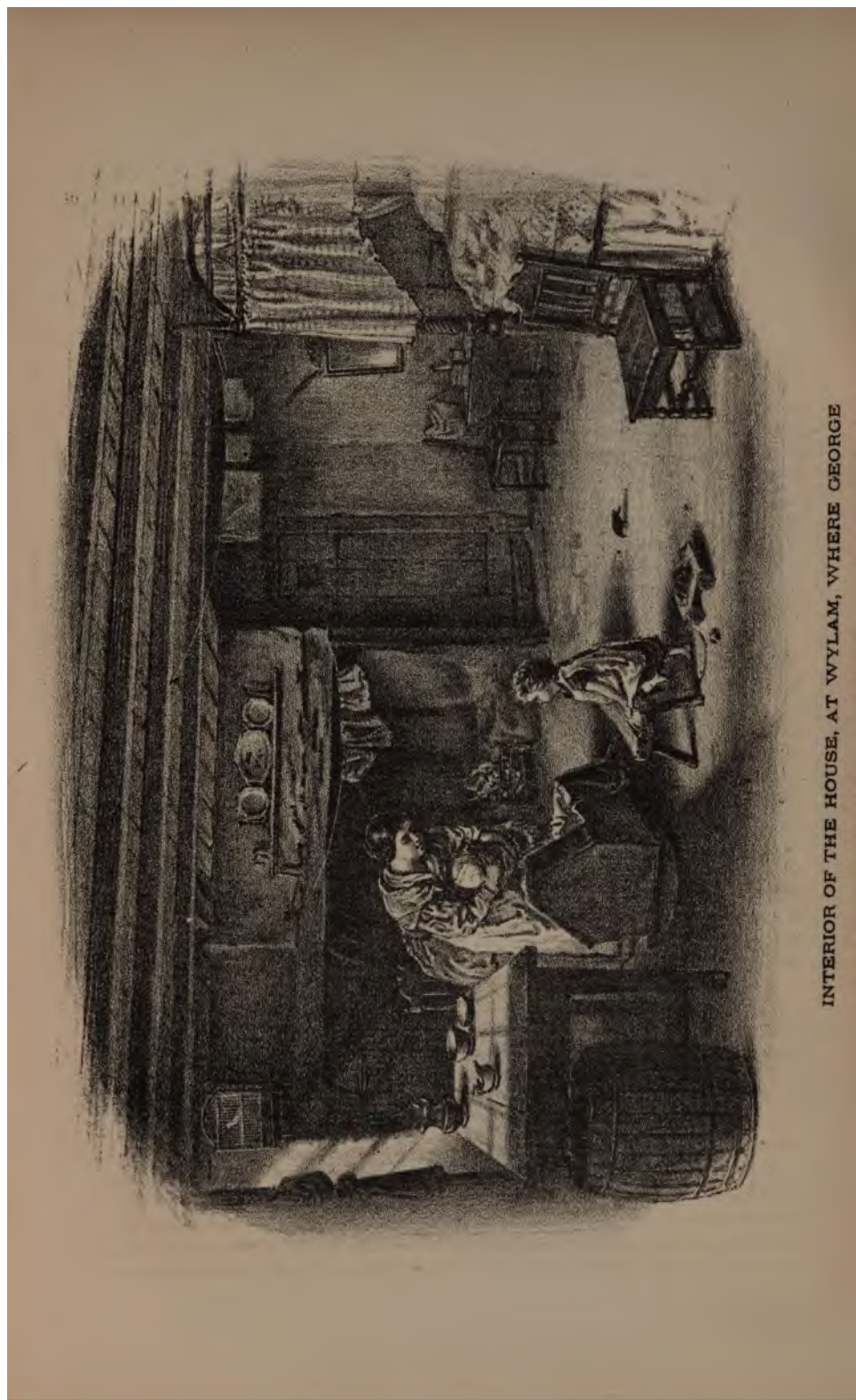
George’s childhood was in no way different from that of ordinary children, save, perhaps, that he showed a remarkable liking for mechanical toys. His favourite playmate was Bill Thirlwall (afterwards also an engineer), and the two often

occupied their time in making clay engines, with hemlock stalks stuck in for steam-pipes.

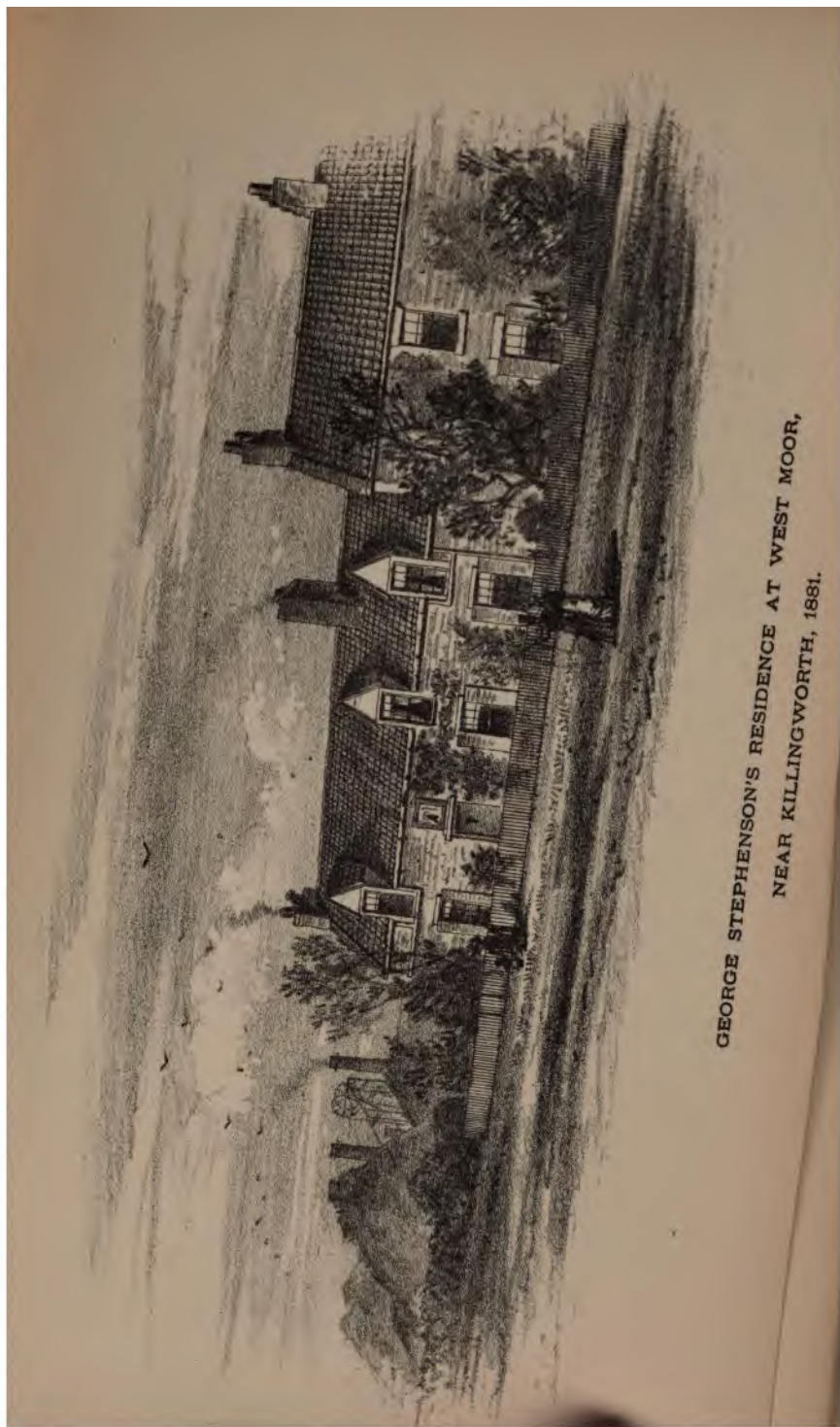
When George was about eight years old, the coal having been exhausted at the Wylam working, the family removed to Dewley Burn, where his father obtained work as engineman to the colliery, of which very little now remains. Here the residence of the Stephenson family was, if anything, worse than that at Wylam. The cottage this time could boast of only one story, and that was low and old-fashioned. In this neighbourhood, at a farm kept by a widow named Aynsley, George for the first time found employment, at a weekly wage of 1s., or twopence per day. It was his duty to "mind the cows," and keep them from straying on to other people's land, or risking their lives on the adjacent waggon-way. As the lad grew older, promotion awaited him. He was paid fourpence per day for leading horses at plough, and hoeing turnips. For agricultural purposes, however, he had no great taste, his chief ambition being to be taken on at the colliery. This emulation was early gratified, and George was employed as a "picker," his function being to separate the dross from the coal, for which his remuneration was sixpence per day. He subsequently received eightpence a day for driving the "gin-horse," and when he was fourteen years of age, he assisted his father in firing the engine at Dewley, for which he was allowed a shilling per diem.

When the Dewley pit was worked out, which happened when the youth was fifteen years of age, the family removed to Jolly's Close, near Newburn, and there George was engaged as fireman, on his own account, to a small engine at the "Mid Mill Winnin." He is next found at Throckley Bridge, and here it was that, on receiving his first weekly wage of twelve shillings, he uttered the now proverbial expression, "I am a made man for life." While attending his engine, he thoroughly mastered the details of its construction, and was soon able to repair it when it was out of order. A great hindrance to advancement in mechanical science was his almost total lack of learning. Conscious of this defect, he determined to take steps for its removal. Accordingly, at the age of eighteen, he is found attending a night school, kept by one Robert Cowens, of Walbottle, to whom he paid threepence per week, for being taught to spell, read, and write. Such was the advancement he made that, when nineteen, he could sign his own name—an achievement of which he was highly proud; and the later stages of his autograph, as exhibited during the late centenary festivities, showed a good, firm, legible hand. In reading, too, he had made considerable progress, but, with "excelsior" yet as his motto, he afterwards placed himself under the tuition of Andrew Robertson, a Scotchman, by whom he was initiated into the mysteries of arithmetic for a weekly fee of fourpence. Being now far above his fellows in the matter of education, young Stephenson was entrusted with more responsible situations, and in 1801 he obtained employment as brakesman at the Dolly Pit, Black Callerton, at a weekly wage of twenty shillings. To this income he added materially by making and mending shoes—an art which he had intuitively acquired.

In his improved position and prospects, young Stephenson began to meditate matrimony. On this important step, he entered on the 28th of November, 1802, when at Newburn Church, he was married to Fanny Henderson. After visiting old Robert Stephenson, now beginning to bend beneath the burden of advancing years, the newly married couple removed to Willington Quay, George becoming brakes-



INTERIOR OF THE HOUSE, AT WYLAM, WHERE GEORGE



GEORGE STEPHENSON'S RESIDENCE AT WEST MOOR,
NEAR KILLINGWORTH, 1881.

man upon an incline attached to a ballast wharf. In his leisure hours he continued his shoemaking and mechanical experiments. Like other men before and after him, he tried to discover a means of perpetual motion, and like others who had been disappointed in that effort, he failed. But his labour in that vain pursuit were not entirely lost, as he gained thereby an insight into wheel-work; and when his own eight-day clock refused any longer to record the flight of time, he was able to restore it to the paths of rectitude and regularity. To the erring timekeepers of many of his neighbours, he extended a similar service, and in this occupation he found another useful source of money-making.

To George Stephenson and his young wife was born, on the 16th of December, 1803, the boy Robert, who, as if to support the theory of hereditary genius, was destined to achieve an engineering distinction almost equal to that of the father. An early shadow, however, was thrown over the interesting event by the death, three years afterwards, of the mother, and the infant, who had been christened in the old school-house at Wallsend, was confided to the care of a house-keeper. Having made this arrangement, the widower workman set out on tramp for Montrose, in Scotland, whence he returned richer by £28. On reaching home, he found that his father had sustained a serious accident, and was in debt to the extent of £15. With filial feeling, the son paid this amount, every penny, and removed his aged parents to the now famous cottage at Killingworth, where the old couple lived many years—the father blind, but happy and cheerful to the end.

As to young Stephenson himself, he found employment as brakesman at West Moor, and was continuing to save when, in 1807, his accumulations were suddenly swept away. He had the misfortune to be drawn for the militia, and every shilling he had put past was paid for a substitute. It was a severe blow, but he took heart again, and fortune once more smiled upon him. He shortly afterwards removed to Killingworth, where he was engaged as enginewright at a salary of £100 a-year. It was here, in 1810, that the first bright spark of his mechanical genius exhibited itself. The pit was "drowned" with water, and an engine was vainly endeavouring to pump it dry. As if by instinct, young Stephenson saw the cause of failure, and, what was better, thought he knew how to apply the remedy. Communicating the idea to some of his fellow-workmen, it found its way to the ears of the overseer, who, every other appliance having proved abortive, agreed to give the suggested plan a trial. The result was successful, and in less than a week the pit was thoroughly cleared of water. In return for this signal service, Stephenson had handed to him £10—the largest sum he had ever received for any one piece of work; and so highly had he risen in the estimation of his employers, that he was entrusted with the entire management of the machinery belonging to the colliery. About this time, the question of an improved mode of locomotion was engrossing philosophical minds. Stephenson devoted much study to the subject, and was not willing readily to relinquish it. After a series of experiments, and furnished with the necessary means by Lord Ravensworth, he constructed a locomotive engine, called the "Blucher," which he successfully launched on the Killingworth wooden railway, on the 25th of July, 1814. It was the beginning that formed the basis of the great achievements with which his name has now become indissolubly associated. A contest was raging as to the rival claims of a canal and a railroad as a medium of communication between the

Tees and the interior of the county of Durham. Each had its advocates, but victory ultimately rested with the railway. At a meeting held at Darlington, on the 13th of November, 1818, it was resolved, "That a road or tramway throughout the entire line between Stockton and the collieries, with branches communicating with Piersbridge, Croft, and Yarm, is, under existing circumstances, preferable to a canal." Dr. Fenwick, of Durham, was chairman on the occasion, and among the speakers were Mr. Edward Pease, Mr. Jonathan Backhouse, jun., Mr. J. Grimshaw, and others. George Stephenson was engaged by the promoters to make the surveys; and the requisite Parliamentary powers having been obtained, operations were commenced on the 23rd of May, 1822, the foundation rail being laid by Mr. Thomas Meynell, of the Friarage, Yarm. During the progress of the works, Stephenson started the now famous engine factory in South Street, Newcastle, being assisted in this undertaking by Mr. Edward Pease, and himself applying a sum of £1,000, with which he had been presented by the coalowners in recognition of his "Geordie" safety-lamp invention. The establishment was opened in June, 1823, and one of its earliest productions was "Locomotion" No. 1, the first engine constructed for the use of the Stockton and Darlington Railway; for in their Act of Parliament the company had taken power to employ steam in the traction of goods and passengers. Amid rejoicings befitting so great and momentous an event, the inauguration of this the first public railway took place on the 27th of September, 1825, the train travelling at the then marvellous speed of twelve miles an hour! George Stephenson forthwith became the hero of the day. His next exploit was in connexion with the Liverpool and Manchester Railway, and his triumph over the "fearful odds" by which he was beset in that undertaking has well nigh become proverbial. In Parliament, the measure was stoutly resisted, and in his examination before the committee to whom it was referred, the great engineer was subjected to a fiery ordeal of questions, but he was equal to the occasion. "Suppose now," said an hon. member, "one of these engines to be going along a railroad at the rate of nine or ten miles an hour, and that a cow were to stray upon the line and get in the way of the engine, would not that, think you, be a very awkward circumstance?" Authorities differ slightly as to the exact answer of the witness. One writer makes him dryly say, "Very awkward—for the cow!" Another represents him as having retorted, "So much the waur for the cow;" but all statements agree that Stephenson's reply indicated that, however unfortunate for the cow, no more serious consequences were likely to ensue. Of this now historical incident, practical illustrations have from time to time been afforded, and, by a singular coincidence, one occurred on the very day succeeding the late centennial celebration. A bull had strayed on to a southern line of railway, and, in a moment of ill-advised venturesomeness, charged an approaching train. It was "very awkward" for the animal, which, of course, was slain on the spot, but nothing worse happened. Amid such hostility the project came to grief, and was temporarily withdrawn. In its renewed form, however, the bill was more fortunate, and received the Royal assent. The line was constructed, but some difficulty still existed as to the engines. It was proposed to divide the line between Liverpool and Manchester into nineteen stages of about a mile and a half each, and to employ twenty-one engines, fixed at different points, to draw the train onward. This system obtained the approval of all the most distinguished

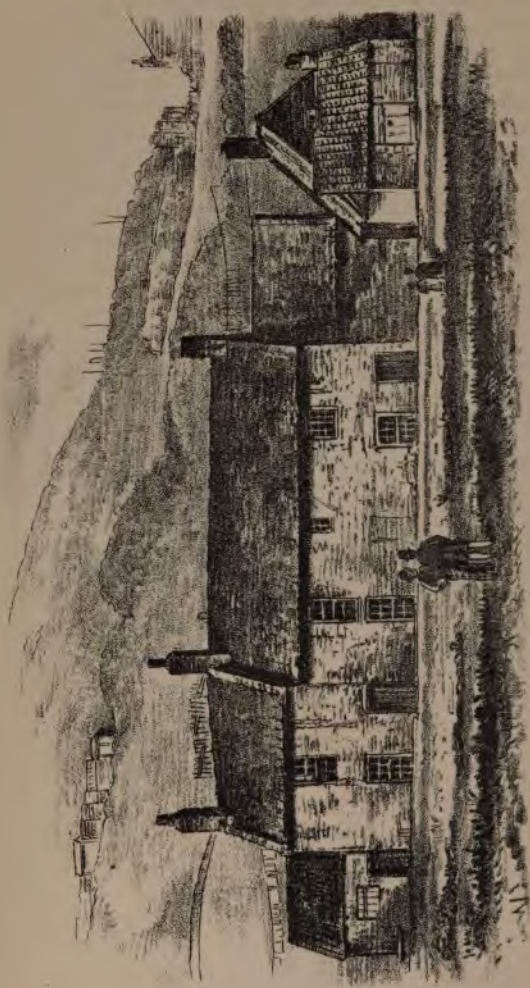
practical engineers of the day. Stephenson almost alone opposed the proposition. In this quandary, the directors offered a prize of £500 for the best locomotive engine that on a certain day should be produced on the railway, and perform a certain amount of work. Four engines entered the competition lists—the “Novelty,” the “Sanspareil,” the “Perseverance,” and the “Rocket,” the last mentioned engine being George Stephenson’s. Of the four, Stephenson’s, as being the most successful engine, received the proffered palm; and on the 15th of September, 1830—nearly five years after its commencement—was opened the Liverpool and Manchester Railway. With the assistance of his only son Robert, by whom he was joined professionally in 1827, Stephenson afterwards constructed the London and Birmingham, the Manchester and Leeds, and other railways. Nor were his services confined to his native country. Before long, the new system of transit and travel extended to Belgium, France, Germany, Italy, and Spain. Steady and progressive has since been the step of the locomotive, which has penetrated even into the uttermost parts of the earth. Lofty mountains have been pierced or scaled by it; deep valleys and watercourses have been bridged by massive viaducts; and the continent of America may now be crossed by rail from the Atlantic to the Pacific.

Having lived to see the locomotive, of which he was the founder, running at a rate of upwards of forty miles an hour, it occurred to the elder Stephenson that he might now, to some extent at least, rest upon his laurels. In this spirit, he removed in 1837 to Tapton Hall, a residence, near Chesterfield, in Derbyshire, and, in 1840, he intimated his design of retiring from his more active professional pursuits. He continued, however, to give attention to various railway matters, and in the social and educational advancement of those around him he also took an active interest. Occasionally, too, he renewed, by personal visits, his acquaintance with his early associations in Newcastle and its neighbourhood, and nothing was more agreeable to him than to converse about “the days o’ auld lang syne.” But advancing years increased the necessity for repose. An illness that had attacked him in Spain had left him extremely debilitated. In July, 1848, he was seized with intermittent fever. From this, however, he was slowly recovering, when an effusion of blood from the lungs put an end to his useful life. He died at Tapton House, on the 12th day of August, 1848, in the 67th year of his age, and he was quietly buried in Trinity Church, Chesterfield, a simple tablet marking the spot where his body lies. In the same town, however, his name is associated with a Memorial Hall, the foundation stone of which was laid, amid an imposing demonstration, on the 17th of October, 1877, and which, under equally auspicious circumstances, was opened on the 14th of July, 1879, the building having been erected at a cost of about £13,000. More honoured in his death, which took place on the 12th of October, 1859, was his son Robert, who sleeps among the illustrious dead in Westminster Abbey.

In character, George Stephenson, who was thrice married, is described as having been most amiable, humane, and generous. Though not a total abstainer, he was strictly temperate in his habits—one of his greatest incentives to this course being a desire to put in the possession of his son that education, the want of which he himself had so sorely felt. Of Stephenson’s contemporaries and companions, the number is now fast ebbing out with the tide of time. One of the most interesting

outcomes of the late centenary of his birth, however, has been the announcement that there are still two or three persons at Killingworth who remember him—one in particular, Mr. John Tate, the foreman smith at that colliery, who was born on the 12th of July, 1806; and near the pleasant little village of Whickham is yet living, at the advanced age of nearly four score years, Frederick Bailey, the first apprentice of the great engineer. On the 30th of May last died Mr. Henry Pease, who may be said to have been the last link, in continuous activity, between primitive and present railway times. Son of Mr. Edward Pease, he was, like his father, in at the birth of railways, having ridden in the first railway carriage; and an interesting object at the jubilee at Darlington, in 1875, he was taken away almost on the eve of the festivities of 1881. The respect and veneration in which the name of George Stephenson is held in the North have already found expression in the monument which, for nearly twenty years, has occupied so conspicuous a position in Newcastle; and the magnificent celebration of his centenary of which the town and district have just been the scene, has added another sturdy stone to the fast-swelling cairn.





BIRTHPLACE OF ROBERT STEPHENSON,
AT WILLINGTON.



GEORGE STEPHENSON CENTENARY.

HISTORY OF THE MOVEMENT.

THURSDAY, THE 9TH OF JUNE, 1881, will henceforth be a memorable date in the annals of Newcastle-upon-Tyne. On that day was celebrated, with a degree of enthusiasm and on a scale of magnitude worthy alike of the occasion and of the man, the hundredth anniversary of the birth of George Stephenson, the father and founder of the railway system. Newcastle has long been noted for its popular demonstrations. Great and successful, however, as some of these, even in recent years, have been, the effort to do honour to the memory of the first railway engineer has outshone them all. Far from promising at the outset, the movement slowly but surely commended itself to the hearts and affections of the people, and, passing from strength to strength, it issued in the grand consummation of which the good old town has so lately been the scene. Of such a progress, and such a result, the history cannot be otherwise than interesting and deserving of recapitulation.

"Coming events cast their shadows before," and probably the earliest note of warning with regard to the approaching centenary of George Stephenson was sounded in a short but conspicuously-printed paragraph which appeared in the *Newcastle Daily Chronicle* towards the close of last year. It was natural that, identified as he had been with the town, and born as he had been so close to its bounds, a desire should be manifested to celebrate, in a fitting manner, the achievements of the great engineer in the Metropolis of the North. With whom the idea itself originated, it would be

difficult to say, but it was, at least, reserved for the Mayor of the borough (Mr. Ald. Angus) to give it practical form and shape. At an adjourned meeting of the Council, held on the 23rd of March last, his Worship announced that the 9th of June following would be the centenary of George Stephenson's birth, and he asked his colleagues whether they wished that any notice should be taken of the occurrence. Nothing more was needed. A committee consisting of the Mayor, the Sheriff, Ald. Hedley, Wilson, and Cail, with Messrs. Stephenson, Wm. Smith, William Sutton, Holmes, and B. C. Browne, was at once appointed to consider and deal with the question. On this beginning was based the splendid fabric which was subsequently built. The first meeting of the committee was held on the 2nd of April. As the practical author of the proposal, the Chief-Magistrate of the borough presided, and amongst those present were the Mayors, Aldermen, and Councillors of many of the Tyneside and neighbouring boroughs, Professor Aldis, and the President of the North of England Institute of Mining Engineers. Letters were read from Sir Wm. Armstrong, Mr. Joseph Cowen, M.P., Mr. Dilke, M.P., and Mr. Burt, M.P., intimating their inability to be present, but expressing their readiness to assist in any effort that might be instituted to commemorate the labours of the eminent engineer. Promises of assistance and co-operation were also received from the Tyne Improvement Commissioners, the Chamber of Commerce, and the Corporation of Gateshead. Of this meeting the proceedings were chiefly preliminary. A motion was passed, however, affirming the principle of the desirability of celebrating the forthcoming centenary; the only other resolution adopted being one which declared that the best means of perpetuating the memory of the day would be the erection of a building in Newcastle for the use of the Durham University College of Physical Science, to be called the "Stephenson College." At the next meeting of the Council progress was reported, and the action of the committee confirmed; while, with a view of enabling his Worship to meet the extraordinary expenditure connected with this and other local events looming in the future of the municipal year, the salary of the Mayor was, on the motion of Mr. Youll, increased from £300 to

£1,300 per annum. Assurances of individual and collective support continued to come to hand, one of the earliest offers of this nature being that of the committee of the Literary and Philosophical Society, who, under the presidency of Dr. Bruce, resolved, on the motion of Sir Wm. Armstrong, to "aid the Corporation in the celebration of the birth of George Stephenson, by placing the rooms of the institution at their disposal in any way that they might suggest;" a similar resolution being arrived at by the Tyne Commissioners on the 14th of April. At the next meeting of the general committee, which took place on the 23rd of that month, a decided impetus was imparted to the project. It was then stated by the Mayor that, at a conference of gentlemen interested in the subject, it had been proposed, as the first feature of the centenary celebration, to have a procession of locomotives from the Central Station to Wylam, the birthplace of George Stephenson. A letter had been received from Mr. Henry Tennant, manager of the North-Eastern Railway, who had been communicated with upon this point, stating that the directors of that undertaking would be very glad to co-operate, as far as they possibly could, in the proposed arrangement, and that the matter would be entrusted to Mr. Fletcher, the company's locomotive superintendent at Gateshead. As the second part of the programme, it was suggested that there should be a representative demonstration, starting from Neville Street, and, after parading the principal streets of the town, marching to the Moor, where a public meeting should be held. It was the intention that this procession should be composed of all the trades of the district, local institutions, trades councils, workmen from the factories and workshops of Tyneside, Free Gardeners, Foresters, Druids, the members of other benefit societies, and public bodies generally; that a holiday should be proclaimed; and that the inhabitants and occupiers in the leading thoroughfares should be invited to decorate and adorn their premises. It was likewise suggested that there should be a banquet in the Assembly Rooms, and that the day's rejoicings should be wound up by a musical fete and display of fireworks in the Leazes Park in the evening. In these suggestions cordial concurrence was expressed, and they became the basis of all subsequent action. Now, and from time to

time, additions were made to the committee, which, as finally constituted, was composed as follows :—

President—The Right Worshipful the Mayor of Newcastle-upon-Tyne (Mr. Ald. Angus, J.P.); The Sheriff of Newcastle-upon-Tyne (Mr. Thomas Richardson), Messrs. Ald. Hedley, J.P., Ald. Wilson., J.P., Ald. Cail, J.P., Ald. Hamond, J.P., Councillor W. H. Stephenson, J.P., Councillor B. C. Browne, J.P., Councillor William Smith, Councillor William Sutton, Councillor Thomas Gray, Councillor Henry Clapham, J.P., Councillor Samuel Rowell, Ald. Cowen, M.P., J. C. Stevenson, M.P., Albert Grey, M.P., Charles M. Palmer, M.P., Thomas Burt, M.P., Sir W. G. Armstrong, C.B., I. Lowthian Bell, F.R.S., The Very Rev. the Dean of Durham, Thomas Hodgkin, J.P., Hill Motum, Henry Tennant, The Mayor of Gateshead (E. S. Hindmarsh), The Mayor of Jarrow (Oliver H. Duffell), The Mayor of South Shields (Henry Nelson, J.P.), The Mayor of Tynemouth (Jos. Baker), The Town Clerk of Gateshead (J. W. Swinburne), The Town Clerk of Jarrow (W. S. Daglish), The Town Clerk of South Shields (J. M. Moore), The Town Clerk of Tynemouth (Horatio A. Adamson), G. B. Forster, J. B. Simpson, Wm. Boyd, G. C. Greenwell, B. Plummer, jun., R. S. Watson, J. A. Haswell, Thomas E. Harrison, Robert Urwin, W. H. Budden, E. Fletcher, George Luckley, Thomas Prosser, L. W. Adamson, Alfred R. C. Harrison, J. C. Laird, J. Marr, J. Dalrymple, T. Crawford, J. Nixon, J. Bryson, P. J. Messent, John Rogerson, George Fenwick, Edward Leadbitter, J. G. Brown, James Laverty, The Chairman of Blaydon Local Board, The Chairman of Felling Local Board, The Chairman of Gosforth Local Board, The Chairman of Hebburn Local Board, The Chairman of Walker Local Board, The Chairman of Whickham Local Board, The Chairman of Willington Local Board, The Clerk of Blaydon Local Board, The Clerk of Felling Local Board, The Clerk of Gosforth Local Board, The Clerk of Hebburn Local Board, The Clerk of Walker Local Board, The Clerk of Whickham Local Board, The Clerk of Willington Local Board, Messrs. George Montie, R. C. Clapham, Crone, R. B. Reed, R. Redpath, E. Eccles, and W. Hayward.

The arrangement of the preliminaries, however, rested chiefly in the hands of an executive committee, consisting of the following gentlemen :—

The Mayor (Mr. Ald. Angus), the Sheriff (Thomas Richardson, Esq.), R. Spence Watson, Esq., I. Lowthian Bell, Esq., F.R.S., Edward Leadbitter, Esq., W. H. Stephenson, Esq., J.P., Thomas Gray, Esq., Mr. Ald. Wilson, J.P.

As honorary secretaries, the services were secured of Mr. J. H. Amos, Professor Aldis, Mr. Theo. Wood Bunning, and Mr. R. H. Holmes. Each of these gentlemen performed well his part, but, from his position as Committee Clerk of the Corporation, the lion's share of the duty undoubtedly fell to the lot of Mr. Amos, who was incessant and indefatigable in his efforts to contribute to the success of the celebration. Even with this staff, however, it was found that the work was more than could be compassed, and so their labours were lightened by the temporary appointment of a shorthand clerk and other assistants. In fitting consonance with the occasion, the first answer to the appeal for the countenance of industrial bodies came from the Amalgamated Society of Engineers, who held a meeting on the 23rd of April, when representatives were

present from Darlington and the various other branches in the district, besides the members of the five branches in Newcastle and Gateshead. It was unanimously decided that the society should take part in the celebration, and the members of the Local District Committee, along with the President and Secretary of each branch in the district, were appointed a committee to carry out the necessary arrangements. Instructions were at the same time given to the secretary of the committee to endeavour to make the demonstration as great a success as possible by uniting the whole of the branches in the central district, with the view of getting as many members as could make it convenient on the appointed day to attend. As a further step in the same direction, there was a meeting of the Newcastle and Gateshead District Trades Council on the 7th of May, under the presidency of Mr. J. C. Laird. By the delegates present a strong desire was expressed to take part in the commemoration of the birth of Stephenson; and a resolution was passed, urging upon all working men in the district the necessity of at once organising for the purpose of successfully carrying out the programme put forth by the Procession Committee. It was announced in due course that contingents of the miners of Northumberland and Durham, under the leadership, respectively, of Mr. John Bryson and Mr. W. Crawford, would join in the march to the Moor; and nothing further was wanting to secure the success of this important branch of the proceedings. Now came the time for action on the part of the town. As became its position and extent, Grainger Street led off this portion of the ball. At a meeting of the occupiers of business premises in that thoroughfare, on the 9th of May, under the presidency of Mr. Adam Carse, a sub-committee was, on the motion of Mr. T. P. Barkas, seconded by Mr. Hay, appointed to wait on the various tradesmen with a view of collecting subscriptions to provide suitable decorations. On behalf of the Mayor, satisfaction was expressed with the response thus made to the invitation; and as one of the tradesmen in the street, a subscription was promised from his Worship. The example was followed, in succession, by Grey Street, Northumberland Street, Pilgrim Street, and Mosley Street, Nun Street, and last of all by Scotswood Road. Although somewhat late in the day,

the Gateshead Corporation entered with characteristic zeal into the movement ; and to a suggestion emanating from the committee of the sister borough were the public indebted for the free transit which was afforded across the High Level Bridge—the much-admired work of Robert Stephenson—on the 9th of June, the Railway Company enhancing the concession by the decoration of the structure.

Meanwhile, the General Committee were busy at work, and so far were the arrangements matured that the first official programme was issued on the 21st of May. In addition to the main points originally agreed upon, it contained a new feature in the shape of a procession of draught horses, which had proved so great a source of attraction on May-day. As an incentive to excellence in this department, it was intimated that the Mayor would give a silver cup, to be designated the “George Stephenson Centenary Cup,” for the best-decorated and groomed single or double yoke of draught horses, second and third prizes also being offered. The arrangements in connection with this portion of the programme were confided to Messrs. John Hindhaugh and Co., Cloth Market and Messrs. W. Oubridge and Son, Town Hall Buildings. In still more direct keeping with the event of the day, came the announcement, at a later stage, that the Chief-Magistrate would give a sum of £10, to be divided into three prizes, of £5, £3, and £2, respectively, to the engine-driver and fireman who should turn out the best-kept and best-decorated passenger engine belonging to the North Eastern Railway Company, leaving the Central Station between the hours of 8 a.m. and 7.30 p.m. on the 9th of June. In compliance with suggestions received from various quarters, it was also determined to arrange for an exhibition of Stephenson relics ; and an appeal was issued to the possessors of such mementoes by the committee, who pledged themselves that the greatest care should be taken of any article lent, and that they should be safely returned at the close of the exhibition. As one of the primary objects of the promoters, the subject of a permanent memorial of the 9th of June, has not been overlooked. In explanation of the resolution on this point, it was stated that the College of Physical Science, which was established and endowed

ten years ago in Newcastle by the combined efforts of the inhabitants of the town and the University of Durham, was seriously cramped in its efforts by want of proper accommodation. It was felt, therefore, that the perpetuation of the memory of George Stephenson by means of a building for the use of the College, in affording ample room for carrying out and developing the highest scientific teaching in the district, would have been as congenial to the mind of that great man, had he been living, as it was possible to conceive. In furtherance of this proposal, a subscription-list, at the head of which stands Sir Wm. Armstrong with a promise of £1,000, has been opened; and to the same commendable object any surplus arising from the general rejoicings will be devoted. An opportunity, it has been announced, will be given to the miners and working men of the district at large of contributing to the fund; and subscriptions will be acknowledged, and ultimately recorded in some conspicuous place in the building as having been derived from the workmen of each particular trade and occupation. In accordance with this plan, the list will be made up as follows:— (1) Old Subscribers and the General Public; (2) Members of the Institute of Mining and Mechanical Engineers; (3) Old College Students; (4) Railway Companies; (5) Coalowners; (6) Professional Engineers; (7) Miners of all Classes; (8) Workmen of all Classes; (9) Royalty-holders; (10) Railway Employés; and (11) Foreign Subscribers; the object being to make the subscription as universal as possible. Of a kindred character, although forming no part of the official arrangements, is the effort initiated by a number of young men, under the guidance of W. D. Stephenson, J.P., for the foundation of a series of Stephenson scholarships, to be open for competition to students in science, subjects from the counties of Northumberland and Durham. The aim is to place the advantages of a University education and a special training in mechanical engineering within the reach of any capable student whose circumstances might otherwise be a barrier to his early success. The examinations will be conducted by the University of London and the Science and Art Department. Nearly £400 per annum will be required to carry out the scheme in its entirety. Indeed, it will take a total of

£690, but with £390 subscribed there will be Government help to the amount of £300, enabling the promoters to provide for 42 scholarships in all—34 of £15 each, 4 of £20, and 4 of £25 per annum. To this scheme will be appropriated the proceeds arising from the breakfast in connection with Bath Lane Church, which, owing to the 1st of May this year falling on a Sunday, was postponed till the 9th of June ; and intended as it is to benefit a large district, the committee will naturally look to the public for pecuniary support.

Not the least remarkable aspect of the centenary was the extent to which the resources of literature and art were imported into the service of the cause. As his contribution to the celebration, Dr. Samuel Smiles, the recognised biographer of George Stephenson, issued a cheap edition of his book ; and a very complete and respectably written life of the eminent engineer was published by Messrs. Ward and Lock in return for that popular coin of the realm—a penny. One of the most singular outcomes of the movement, however, was a series of letters which from time to time appeared in the *Chronicle*, containing interesting records of personal reminiscences of Stephenson—some of a direct and others of an indirect description, but all tending to show that much remained to be accomplished in this field of research. In anticipation of the event, the proprietors of the *Graphic* had issued a number of that periodical specially devoted to Newcastle, the descriptive letterpress being the compilation of Mr. Aaron Watson, a local journalist, while the drawings—numerous and excellent—were also the work of a native of the North. Its older contemporary—the *Illustrated London News*—improved the occasion in a similar manner, the local engravings in that journal being chiefly copies of photographs taken by Mr. Laws. Of incidents connected with the early history of railways and their pioneers, there have been pictorial representations in all forms and sizes ; and if judged by the extent of the supply, the demand for such productions must have been great. Memorial medals, too, in equally endless variety, have not been wanting ; and some of these were executed with a neatness and chasteness worthy of constituting them permanent possessions. Especially is this compliment applicable to the medallic memento issued in support of the Railway Servants'



**MEDAL STRUCK IN HONOUR OF GEORGE STEPHENSON,
AT THE CENTENARY, HELD IN NEWCASTLE,
JUNE 9th, 1881.**

Orphanage at Derby. Designed by Mr. Chapman, it presents on the obverse a striking portrait of Stephenson from the celebrated marble bust by Wyon, copied by permission of Mr. G. R. Stephenson, and on the reverse side well-modelled representations of the old "No. 1 Locomotive" and the famous "Rocket." Packets of Stephenson stationery were plentiful, and a Stephenson pen, bearing the monogram "S" was also among the products of the season.

In view of the vast magnitude which the movement had now assumed, a suggestion found vent to the effect that the celebration might be graced by some member of the Royal Family. An effort was made to obtain the gratification of this desire through the medium of Prince Leopold, the recently created Duke of Albany, who was at the time residing with his mother at Balmoral; and in compliance with this feeling, a circular was issued on the 28th of May, hurriedly convening a meeting of the Executive in the Mayor's Chamber. Communications had previously been entered into with Sir William Armstrong, who generously agreed to place his residence at Jesmond at the disposal of the Prince, should he consent to accept of the proffered hospitality. This provision having been made, it was unanimously resolved, on the motion of Dr. Newton, seconded by Mr. William Smith, that a deputation consisting of the Mayor, Sheriff, and Town Clerk, should proceed to Balmoral for the purpose of inviting his Royal Highness to visit Newcastle and take part in the celebration. A telegram was first forwarded by the Mayor to the equerry of the Duke, soliciting an audience on the subject. The reply, however, was unfavourable. His Royal Highness thanked his Worship for the kind invitation, but hoped that the deputation would not take the trouble to proceed to Balmoral, as he could not be present on the occasion. A second telegram was despatched, asking the Duke to reconsider his decision with reference to an interview, but the result was the same, and so the proposal was abandoned. If not directly, however, Royalty was indirectly represented, the Belgian Government having sent a deputation to Newcastle. The distinguished visitors were—MM. Frau der Sweep, Leon Bika, and Henri Goudry, who also bore with them, on behalf of their country, which

early availed itself of the benefit of the railway system, a sum of £500 towards the projected College.

On the 30th of May, the Mayor issued his fiat in favour of a holiday for the 9th of June. In making this recommendation, his Worship was perfectly sensible of the inconvenience which might arise by the observance of another general holiday so soon after the usual holidays on Whit-Monday and Whit-Tuesday, and in order to obviate this inconvenience as far as possible, he suggested that the tradesmen and others should observe the whole of Monday (Bank Holiday) as a holiday, and keep their places of business open during the whole of Tuesday. Holidays for the event were also proclaimed at Gateshead, as well as at North and South Shields. In the arrangements of the representative procession, and in the execution of the street decorations, which were to form the most important features of the day's proceedings, much yet remained to be done by the various committees. With the co-operation of a willing, united, and enthusiastic people, however, the work was accomplished within the appointed time; and on the 9th of June, the curtain rose on a scene of gaiety and grandeur such as has never before been witnessed in Newcastle.

THE DECORATIONS.

Commenced about a week previous, the decorations, on which so much labour and expense had been bestowed, were completed on the eve of the centenary, and the result was a *coup d'œil* of beauty and brilliancy which elicited many expressions of admiration from the crowds of the community by whom they were inspected. In prospect of the celebration, the weather, on which so much depended, naturally formed a subject of solicitude and speculation. At such a time, and in the presence of such a spectacle, rain would have been a most unwelcome visitor, and many and hearty were the wishes expressed that such a misfortune might be averted. In happy harmony with the event, the morning dawned on the whole cheerfully and hopefully. There was a chillness in the atmosphere that was somewhat uncomfortable for the season of the year, and the sky, too, was, to some extent, overcast, but patches of blue were here

and there visible, and there were occasional gleams of sunshine. This state of matters continued with little variation during the day; and with the exception of a slight hail shower in the course of the proceedings at Wylam, the weather was altogether of a very suitable and agreeable description.

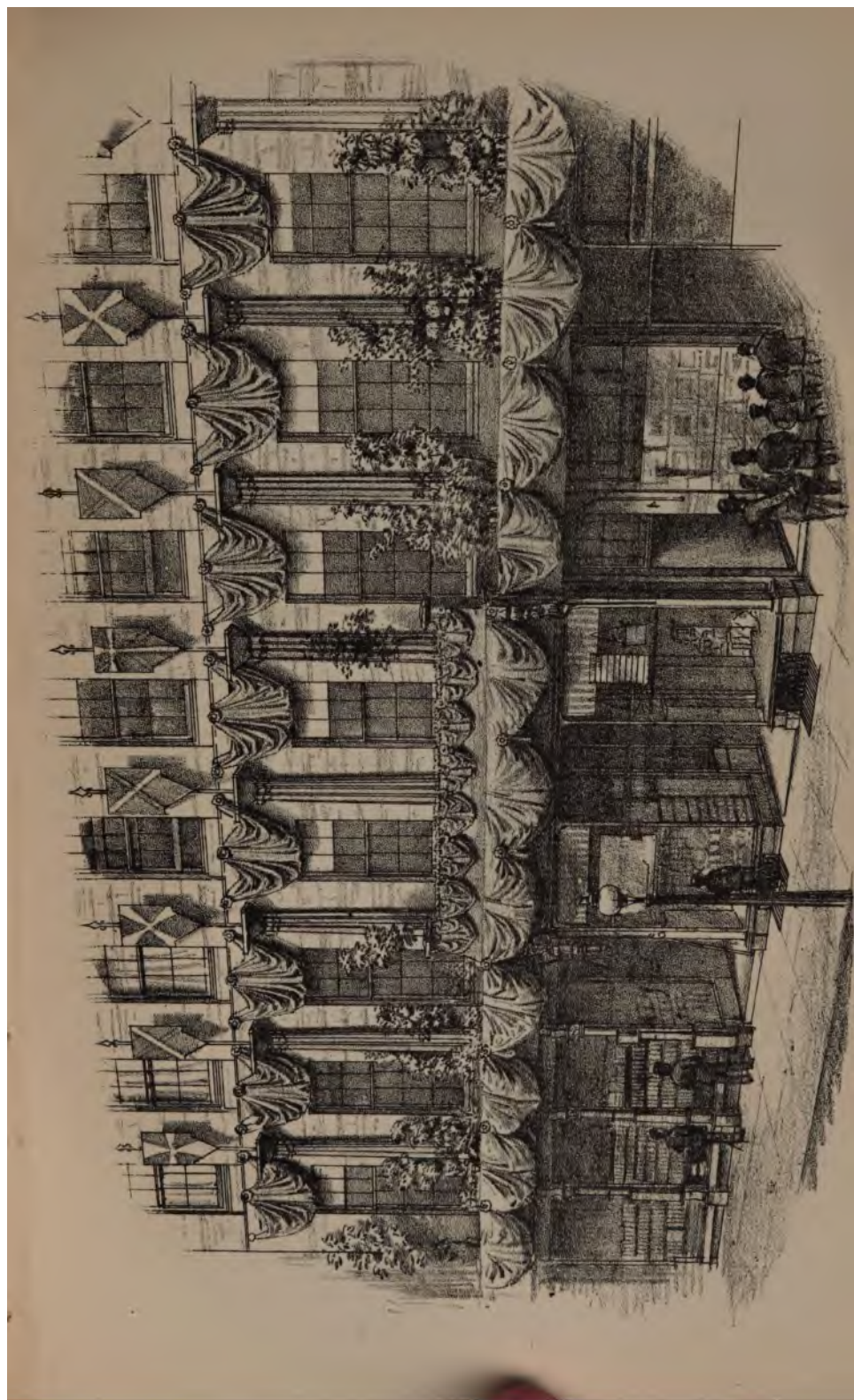
GRAINGER STREET.

As it was the first to enter the field, so Grainger Street may be pronounced to have reached the acme of excellence in the work of decoration. The graceful and artistic line which, in its now finished form, that thoroughfare presents was admirably adapted for scenic display, and the view almost from end to end was a perfect vista formed of the richest and prettiest colours. At short intervals were placed tall Venetian masts enveloped in red cloth and surmounted by a gilt spear head. Near the centre of each mast was fixed a shield bearing the arms of Newcastle, together with the monogram "G.S." the arms of England, Ireland, and Scotland, and the Royal Arms of the United Kingdom. The shields each bore a trophy of flags, while from the top of the masts was hung a fine heraldic banner. The masts were connected along each side of the street by means of festoons of flags, thus forming two undulating lines of brightly coloured flags from one end of the street to the other. From window to window the street was crossed at short distances by motto banners and the flags of almost every nation, the variety of colour making the street a brilliant spectacle. Several of the places of business were tastefully decorated for the occasion by means of flags flying from windows, and shields bearing bannerets fixed on the front of the building. Prominent amongst these special decorations were those on the front of the premises of Messrs. D. Hill and Co. From the windows depended crimson drapery, and below them were shields bearing banner trophies, the effect being heightened by festoons of flowers and flags fluttering in the wind at various points. The special feature of these decorations was a large portrait in oils of the hero of the day, painted expressly to the order of the firm by Mr. Dickenson, a rising local artist. Next door to this brilliantly-decorated establishment were the premises of Messrs. W. Stewart and Son, tea dealers. Over

the front of this shop were the well-known Asiatic figures representative of the produce of Arabia, China, and India. These dusky figures were thrown into strong relief by means of a background of crimson cloth, corniced with very handsome Vandyke drapery. In order to give it the appearance of a Chinese Pagoda, spears were fixed on either extreme of the building, while Oriental drapery, artistically looped in folds, and having Chinese lanterns as pendants, overhung the Asiatic group. In the centre of the building were inserted the letters "G. S.," enclosed with flags and trophies. Chinese umbrellas and flags added to the characteristic appearance of the place. The upper windows were draped and bore the flags of France and Great Britain, indicating the commercial relationships of these nations with India, China, and Arabia. The whole appearance of the front of this establishment bore evidence of having had bestowed upon it great taste and skill. The premises of Messrs. Milling and Co. were also very tastefully draped in red and white. Displayed in front of Mr. G. T. Davison's provision shop was an excellent chalk drawing, being a striking full-sized portrait of George Stephenson standing on Chat Moss. On either side were excellent views—one representing the cottage at Wylam in which Stephenson was born, and the other the "Rocket;" the whole of the drawings being the work of Mr. Thos. McKendrick, son of Mr. James McKendrick, of Newcastle. In the window of the North of England School Furnishing Company was exhibited a drawing illustrative of the well-worn story of Stephenson and the "coo."

GREY STREET.

In their chief details, the decorations in this thoroughfare closely resembled those of Grainger Street, *ex uno disce omnes* being a maxim generally applicable to the whole. A curve has been defined as "a line of beauty," and the slightly crescent form of Grey Street, with the substantial and artistic buildings on either side, was well calculated to show off the bunting to the best advantage. Much interest centred round the establishment of Messrs. Mawson, Swan, and Morgan, the front of which was adorned with exquisitely arranged crimson drapery, with red



shields bearing heraldic devices in white above. The draperies were in the style of the time of Louis IV., and the effect of the crimson standing out from the stone building was very rich and warm. The appearance of the whole was enhanced by an extensive display of laurels and evergreens tastefully arranged. The Corinthian pillars in front of the building were covered with crimson, and laurel wreaths were gracefully suspended from the tops of the columns. The balcony, too, was filled with foliage and flowers, and the effect of the whole was of the most charming description. A few doors above this the premises of Mr. Harrison were very gaily decked in crimson cloth, shields, and trophies and banners. The places of business of Messrs. Reid and Sons, Mr. Hare, and others, were all very smartly decorated. Indeed, the aspect of the whole street was such as to delight all beholders.

COLLINGWOOD STREET.

Apart from the general display in this street, the Turf Hotel, and several others of the houses, displayed flags, while Signor Vitale, of the Wellington Restaurant, combined simplicity with elegance in his display of the *drapeause* of all the European nations.

MOSLEY STREET.

This street was lined with red masts and light green ones, entwined with red and white flowers. Each line of masts was connected by festoons of flowers or festooned flags, and affixed to several of the masts were rustic pedestals, with handsome crimson valances, bearing upon them foliage, plants, and flowers. The premises of Mr. Wm. Franklin, bookseller, were elaborately and elegantly decorated with crimson drapery, natural plants and flowers on rustic pedestals. The floral display of Messrs. Samuel Finney and Co., Queen's seedsmen, was also much admired.

PILGRIM STREET.

A striking spectacle in this street was the Police Court buildings, which were very richly and tastefully decorated. The Arcade was elegantly draped from its lower windows with blue and amber,

and from the higher windows with crimson and gold, and its broad front was mounted by well-arranged trophies of flags and brightly-embazoned shields. Of the most interesting decorations in the street, that of the front of the premises of Messrs. Thompson and Co., nurserymen, was exceedingly pretty. The whole of the front of the building was covered with tastefully-arranged twigs and branches of various kinds, while across was the name of the firm in letters of red and white daisies. Messrs. Bragg and Son also had used the radiant hue largely in their decorations, the balcony of their premises being studded with various plants, while they had also introduced crimson drapery and flags.

NORTHUMBERLAND STREET.

A striking feature in the decorations of this street was the gay and handsome appearance of the front of the premises of Messrs. Sopwith, the upholsterers. The taste of Messrs. Carnegie and Gullachsen, to whom so much of the decorative work of the day had been entrusted, was also exercised with good effect upon their own premises, at the junction of Bath Road and Northumberland Street. Exceedingly beautiful, too, were the premises of Mr. G. Laidler. In the cornice of the balcony Mr. Laidler had inscribed a legend to the effect that George Stephenson was his father's first customer when he commenced business in 1823. Mr. Laidler, senior, started business at the west end of Collingwood Street, and George Stephenson gave him there his first order, which was to execute the painting work at South Street Engine Works, then being established.

MARKET STREET.

The most attractive objects in this thoroughfare were the establishments of Dunn and Co., Bainbridge and Co., and Coxon and Co., which were profusely adorned with flags, shields, and rich drapery, the whole having an appearance of luxuriance that forcibly arrested the attention.

OTHER THOROUGHFARES.

Although less elaborately decked than their neighbours, the other thoroughfares of the town were not lacking in the show of

adornment. Most prominent in this order, perhaps, was Westgate Street. Several flags floated from the corner of Library Place and the neighbouring houses, the premises of the Literary and Philosophical Society displayed a lot of bunting; and the fine building, the Mining Institute, was elegantly decorated. The *Chronicle* buildings formed a most conspicuous object from the roadway. The frontage was literally hidden by the mass of colour displayed from the various windows. The standards were of large and choice design, and were borne aloft upon handsome gilt-headed halberts resting in crimson covered stands. The premises of Messrs. Charlton, Messrs. Walker, Emley, and Co., the Union Club House, the Express Inn, the Gas Office, and the Central Station Hotel, also presented a very brilliant appearance. The decorations of Clayton Street consisted simply of crossings of flags, a red cloth valance at each window, and a general display of bunting. Notwithstanding the fact that neither of the two processions passed through East Blackett Street, the tradesmen of that thoroughfare loyally vied with their more fortunate brethren in business in adding to the general picturesqueness of the town. Probably the most effective specimen of ornamentation to be seen there was at the premises of Councillor Wm. Sutton, draper. In the front of his establishment was fixed a large portrait of the famous engineer, surrounded by blue and white drapery. Above it was exhibited a variety of choice flags, flaglets, and bannerets. New Bridge Street on the whole presented an animated spectacle. Streamers of bunting crossed the thoroughfare at sufficient intervals, and from various windows were hung flags of all kinds. The feature in this neighbourhood was the Blyth and Tyne Railway Station. Over the entrance gates leading to the station was a handsome arch of evergreens, surmounted by a huge ring of foliage, upon which again was displayed a festoon of flags suspended from two Venetian masts placed at either side of the gateway. Joined to these by lines of flags were several Venetian masts, also handsomely decorated, and the station yard was aglow with the colours of a large number of flags. In the Bigg Market was shown a quantity of bunting, but the display was not on an extensive scale. From many private houses flags and

banners were also freely displayed. This was especially the case along the route of the procession, and the favourably situated residence of Mr. Nichol and his neighbours in Jesmond Terrace was exceedingly tasteful and pretty. A house in Eldon Street, in which is inserted a memorial stone indicating it to have been for some time the residence of the elder and younger Stephenson, was the scene of a very rich and well-arranged display. The spirit of decoration, although necessarily on a minor scale, also extended to the more remote districts of Scotswood Road, Shieldfield, and Byker.

PUBLIC BUILDINGS.

Closely associated as it was with the event of the day, the monument of George Stephenson, standing on the triangular space in Neville Street, naturally formed a conspicuous object in the direction of decoration. This statue was unveiled by the late Earl of Ravensworth on the 2nd October, 1862, during the mayoralty of the late Mr. Joseph Armstrong, and it is worthy of note that of the mayors who took part in that interesting ceremony, the only one who yet survives is Mr. Watson, who at the time was chief-magistrate of Morpeth, and is now resident in Newcastle. Under the direction of Mr. Thomas Prosser, architect, the handsome monument erected to the memory of the great engineer, was thoroughly cleaned, repaired, and decorated for the occasion. The palisading was painted and varnished, and the palisade points tipped with gold. The base was entirely covered with crimson drapery. On each of the four sides were splendidly-executed monograms of George Stephenson, upon trophies surrounded with flags of all nations. At each angle of the railings round the statue were placed raised poles bearing beautiful flags and banners. In the centre behind the statue was erected a mast forty feet high, with a large Union Jack floating over the figure. The poles were connected by festoons of flags. Round the base of the monument shrubs, plants, and choice exotics, together with moss-covered rockeries and ferneries, were arranged in plentiful profusion, and the effect produced was singularly fine. As representative of the genius of the younger Stephenson, to whom indeed it may be said to be in itself a monument, the High



STEPHENSON'S MONUMENT, NEWCASTLE-ON-TYNE,
DESIGNED BY LOUGH.

Level Bridge was rendered by its proprietors, the North Eastern Railway Company, a source of great popular attraction. The entrance at each end was a perfect mass of evergreens. At the Gateshead side, in the centre of the floral archway, was the inscription in artistic letters, "June, 1781, Honour to whom honour is due, 1881;" together with the borough arms of Gateshead. The inscription at the Newcastle side was "June, 1781. Success to Railway Enterprise, 1881," with the arms of Newcastle and the Railway Company in the centre. All the way through from the Newcastle to the Gateshead end were looped festoons of evergreens, and at distances of from twenty to thirty yards apart streamers of gaily-coloured bunting were suspended across the whole of the interior. The top part of the bridge was well covered with flags and evergreens, the effect of which, as seen especially from the Quay and the Swing Bridge, was of the most bright and attractive character. Triumphal arches of evergreens were also erected on the superstructure through which the heavily-laden trains passed during the day. Bunting and evergreens were profusely displayed at other portions of the line between the Central Station and Gateshead, the entire aspect of which was exceedingly picturesque. One of the finest sights in the town, however, was undoubtedly the Central Railway Station, the designs for the decorations of which were specially prepared by Mr. Harris, of Messrs. Defries and Son. The cornice along the outside of the portico was covered with valances of crimson cloth enriched with amber, French lace, rosettes, and tassels. The arches were draped and curtained to correspond. In each of the six arches in front of the portico tall Venetian masts were erected, furnished with trophies of glass, with shields bearing the arms of Newcastle and monograms of the great engineer. The large lamp in the central arch was beautified with a trophy of glass, and over the centre and side arches groupings of flags, with the combination shield of the company were placed. Flags of all nations were also here mounted. The *façade* was covered with a profusion of flags displayed on the top of the station, and underneath the portico depended banners of various kinds. Inside the main platform presented a superb sight. The material used was blue rep drapery, expressly manufactured for the occasion, with

valances of blue and amber, together with a profusion of lace, French cords, and tassels. The lamp posts bore trophies of flags, and three trophies were fixed above the drapery supporting the three separate shields of the company in the centre, surrounded by other bunting. The columns on the main platform were covered with red cloth with crimson and amber foldings, and on each column was a special trophy. A handsome arch was specially made for the principal ticket gate at the south platform, with the name "Stephenson" in gold upon it, and the years 1781 and 1881. The roof of the interior and other portions of the structure were furnished with some hundreds of very fine flags of all nations, the scene there being the gayest ever known. In the large semi-circular windows facing Neville Street, shrubs and plants were displayed, together with handsome flags. Banners and plants were also exhibited from the numerous windows of the hotel adjoining, which added greatly to the attractiveness of the building. The Town Hall received special attention at the hands of Mr. Harris. Over the *façade* was arranged crimson and amber drapery in a choice design, and above was displayed a bright trophy of banners, with the arms of Newcastle and supports in the centre. On one side was a shield, with the motto, "Honour to whom honour is due," and on the other, the words, "George Stephenson, born June 9, 1781." A trophy of flags was placed over the entrance to the municipal offices, and a similar trophy above the the bank entrance. One of the finest sights in Grey Street was that exhibited by the Theatre Royal, which, under the lesseeship of Mr. Bernard, was rendered extremely gay. In the centre above the portico was the Royal Standard, and on each side the flags of Scotland and Ireland. The outside pillars were fitted with gas jets, which were entwined from top to bottom for the purposes of illumination, and between the rows of lights laurel leaves were displayed. A beautiful medallion, with suitable inscription, was placed in the centre of the building, and on each side large shields and trophies of flags were exhibited. The glass windows within the portico were handsomely illuminated, while flags, flaglets, bannerets, and other forms of bunting were profusely scattered about the *façade*. In the centre of the pillars was a handsome

crystal illumination with the monogram "G. S." The Grey Monument was not overlooked. At the base of the statue facing Grey Street, was a large design with red ground and blue star in the centre, with the name in gold letters "Stephenson, 1815." Surrounding this were the following names and dates in gold lettering:—Hackworth 1827, Watt 1780, Murdock 1784, Trevethick 1803, Blenkinsop 1812, Hedley 1813. At the four angles of the monument were shields and trophies of flags, the lamp-posts being prettily adorned. The lower portion of the column proper was also tastefully hung with blue and amber drapery. The work of public decoration was carried out chiefly by Messrs. Carnegie and Gullachsen, Northumberland Street, Newcastle; Mr. Harris, the representative of the famous London firm of decorators, Messrs. J. Defries and Son; and Messrs. Womersley and Co., of Leeds; and the result of the combined labours of these gentlemen was everywhere pronounced a brilliant success.

GATESHEAD AND THE DECORATIONS.

Although somewhat late in entering the field of action, the sister borough of Gateshead well acquitted itself in the celebration of the centenary. By the Town Council the sum of £50 was voted to the Mayor (Mr. Ald. Hindmarsh), to be applied at his discretion in defraying the necessary expenses of the occasion; and the hearty manner in which the tradesmen and the working men of the locality responded to the invitation of the Council to join them in the procession placed all possibility of failure out of the question. The committee appointed to carry out the decoration of the Town Hall, and of West Street and High Street, were Messrs. Wm. Hunter, Wm. Snowball, T. Pearson, T. R. Keith, Air, J. Hedley, G. Armstrong, W. T. Clough, M. Robson, R. Robson, Jos. Newton (Messrs. Green and Sons), A. Gibson, John R. Horsley, with Chief-Constable Elliott as secretary of committee; and from the first the aim of these gentlemen was in the direction of graceful and pleasing, rather than in elaborate ornamentation. The appeal made to the public for subscriptions met with a fair response, and the display was certainly as neat and attractive as the means

placed at their disposal would allow. In the principal streets, moreover, their efforts were liberally seconded by the private decoration made by the leading tradesmen, and the combined effect produced was of a kind calculated to call forth the loudest expressions of admiration and approval.

STEPHENSON SCHOLARSHIP SCHEME.

BREAKFAST IN BATH LANE HALL.

First in the order of the day's doings, although totally separate and distinct from the official programme, was a public breakfast in the hall connected with Bath Lane Church. It appears that the usual May morning festivities of the congregation were this year not held, and in their place it was resolved to give an early entertainment on the morning of the Stephenson Centenary in support of the fund for instituting Stephenson scholarships that has recently been set on foot by the young men connected with that place of worship. The proposed scholarships are to be of the nature of University exhibitions, engineering exhibitions, and science and art scholarships, and are to be 42 in number. Of these 34 are to be of the value of £15 per annum, four of £20 per annum, and four of £25 per annum. The University exhibitions will be open to any candidates resident in the counties of Northumberland or Durham, of not more than twenty-one years of age, who shall have been placed in the honours of the matriculation examination of the University of London. The engineering exhibitions will be available to any candidates of sufficient merit, and of not more than nineteen years of age, attending any science school or class in Northumberland or Durham, or taking a course of science study. The general object of the promoters of the scheme is to place the advantages of a University education, and a special training in mechanical engineering, within the reach of any capable student whose circumstances might otherwise be a barrier to his early success. About £400 per annum, in addition to the Government grants, will be required to carry out project. The breakfast was spread in the Bath Lane Hall, the tables being beautifully decorated, and the provision made being of the most liberal kind,

The tables were presided over by the following ladies:—Mrs. Dr. Rutherford, Mrs. W. D. Stephens, Mrs. Councillor Smith, Mrs. Weddell, Mr. Wm. Walker, Mrs. Weightman, Mrs. Councillor Henzell, Mrs. Jas. Blakey, Mrs. Herdman, Mrs. Birkley, Mrs. Bedford, Mrs. Little, Mrs. Nichol, Mrs. Falconar, Mrs. Wm. Davidson, Mrs. Thos. Reay, Mrs. Maddison, Mrs. Cooke, Mrs. Brown, Mrs. Langlands, Miss Simpson, and Mrs. Armstrong. The tea arrangements were under the charge of Miss Henderson and Messrs. Rae, Maddison, and Sargant. The attendance was very large, and the company had to be accommodated in two or three divisions. After breakfast, a meeting in furtherance of the undertaking was held in the Chamber, at which there was also a good attendance. Upon the motion of Mr. Councillor Wm. Smith, seconded by Mr. Wm. Trotter, Mr. Joseph Cowen, M.P., was voted to the chair by acclamation.

Mr. W. D. STEPHENS, on being called on, stated that to the circulars that had been sent out, the answers received had been exceedingly satisfactory. They had had cordially expressed letters of sympathy from Mr. Gladstone, Lord Hartington, and Mr. Bright—(cheers)—and also from Earl Percy, Sir John Lubbock, Sir Farrer Herschell, Sir Matthew White Ridley (who said that the scheme commended itself to his feelings, and he was quite glad to have the opportunity of supporting it); from the Hon. Lyulph Stanley, M.P., the Hon. F. W. Lambton, M.P. (who promised a subscription of £3 annually); from Mr. G. Howard, M.P., and from Mr. Joseph Cowen, M.P. (cheers); and here he might just say parathetically that their worthy chairman, who never did anything by halves, had promised to give them a donation of £100 to start with. (Loud cheers.) They had also heard from Mr. Ashton W. Dilke, M.P., who expressed his great sympathy with the movement; Mr. J. C. Stevenson, M.P., Mr. E. T. Gourley, M.P., Mr. T. C. Thompson, M.P., Mr. Arthur Pease, M.P., Mr. Joseph Dodds, M.P., Mr. T. Fry, M.P., Mr. C. M. Palmer, M.P., Mr. W. H. James, M.P., and Mr. J. W. Pease, M.P., Mr. S. Storey, M.P., and Mr. T. Burt, M.P. (Cheers.) They had had a very pleasant and agreeable letter from Mr. T. W. Backhouse, of Sunderland, who said the object was worthy of all support, and gave them a subscription of

£20; from the Rev. A. Norris, Tynemouth; the Rev. W. Oldfield, Newcastle; the Right Rev. Dr. Chadwick; and the Very Rev. Provost Consitt. They had, moreover, had letters from Mr. J. W. Pease, of Pendower, who gave £5; Mr. R. S. Watson, Mr. A. Coats, Mr. E. Walters, Mr. W. Wilson (Mayor of Sunderland), Mr. A. Darling (Mayor of Berwick), Mr. C. H. Duffell (Mayor of Jarrow), Ald. G. Charlton (Gateshead), Mr. J. A. Game, Mr. D. Atkin (who kindly subscribes £10), the Rev. Canon Drysdale, the Rev. H. Batchelor, the Rev. W. Hirst, the Rev. H. Burson, the Rev. W. Lee (Sunderland), Mr. Deane S. Pennethorne, Mr. T. Cooke, Mr. T. Lockey, Mr. W. Goodrich, Mr. W. M. Henzell, Mr. R. Welford, Mr. John Bryson (Bebside), Mr. W. H. Patterson (Durham), Mr. R. Fynes (Blyth), Mr. Edward Towers, the Rev. W. Elliott (Sunderland), the Rev. B. J. Snell, the Rev. H. Ernest Radbourne, the Rev. A. Fitzgibbon Riley, the Rev. D. S. Ramsay (St. Bede's, South Shields), the Rev. Alfred Payne, Mr. J. B. Nichol, Mr. W. Paxton (Blaydon), Mr. T. Simpson Birkby, Mr. J. G. Bedford, Mr. R. Y. McIntosh, Mr. Thomas Reay, Mr. Joshua Davidson, the Rev. R. Stewart, the Rev. J. Hallam, and the Rev. R. Hind. Mr. Wm. Crawford, of Durham, could not be with them that morning, but they had his entire sympathy and most hearty support. (Cheers.)

The CHAIRMAN, in then addressing the company, said: Ladies and gentlemen, we have met on the morning of the centenary of the birth of one of the most famous Northumbrians to initiate a project that will perpetuate his memory, confer honour on those who have projected it, and lasting benefits on those who avail themselves of its advantages. It is an appropriate start to the festivities which will mark this as a red-letter day in our local annals. It would be a work of supererogation to recount the story of his life from year to year. His name is "familiar in our mouths as household words," and his works are before us. There have been on the long roll of notable Tynesiders men of more intellectual brilliancy; men with more of the dash and flexibility of genius; but, take him all in all, there is no one that more faithfully typifies the masculine virtues and the physical and moral capabilities of our race and nation. (Cheers.) His indomitable perseverance

and untiring industry, his resource under temporary difficulty, his courage under temporary defeat, and his manly modesty in the hour of triumph, all combined to make up a character that ought to win our admiration and exact our esteem. (Cheers.) An unlettered boy at twopence a day, he rose, first to be a colliery brakesman and engineman, mending clocks, repairing shoes, cutting out pitmen's clothes, with the view of increasing his small income ; then the originator and organiser of the grandest combination of capital and labour that the world has ever witnessed ; and ultimately a leader and a king of men. The tale is as stirring and striking as ever modern novelist conceived or eastern necromancer foretold. He achieved his success by steady, sturdy study. His fame is based on a pure, spotless life. He never sought meritorious applause and he never pandered to bad passions. There was nothing of anger, morosity, or indulgence in his character. Taking him altogether, I do not know any man whose career can be placed as a model more safely before the youth of this country than that of the homely and genial, grave but gentle, north-country engineer. (Loud cheers.) It is a happy idea to associate the name of Stephenson, in a town with which his interest was so indissolubly identified, with a project for extending scientific and mechanical knowledge. The scheme to be propounded this morning, the main features of which are, I believe, familiar to you all, and the details of which will be explained at a subsequent period of these proceedings, is to aid in teaching the sciences requisite to comprehend rightly and apply intelligently to the purpose of national industry and individual advancement. There never was a time when it was more necessary for a nation—and for the English nation especially—to possess this peculiar knowledge. (Cheers.) There have been periods in the history of the human race when accidental circumstances, the possession of physical advantages, gave supremacy to a people. A coal country for example became perforce a manufacturing country, in consequence of its large possessions of fuel. (Hear, hear, and cheers.) Science and enterprise have levelled those local barriers. The iron missionary that George Stephenson sent over the land, and the snorting seahorse others have launched upon the deep, have so facilitated the communication of

nations that adventitious local advantages have become of secondary moment. (Cheers.) The city of Chicago now is as near Newcastle, for commercial purposes, as the city of York was one hundred years ago. (Cheers.) It was never more urgent, therefore, for any nation than ours to utilise all the intellectual and physical powers it has at its command. (Cheers.) It is with nations as it is with nature—there is no rest and no pause. There is constant motion and evolution. Failure and disaster always cling to those that stand still. (Hear, hear.) We have made great advance of recent years in the education of the people. The progress has been marvellous within even the lifetime of a man of moderate age, but still our system is fragmentary and partial. There is a want of harmony in our different appliances. They do not blend with each other with that unity which is desirable. It is one of the advantages of the scheme which is to be submitted to-day that it helps to accomplish that work, and to bring different agencies into more harmony. It unites the primary school with the high school, and the high school with the college. (Cheers.) There has an idea got abroad that there are some occult rivalry between this project and that of the College of Physical Science. There could be nothing further from the fact. It is not only not antagonistic, but it is sympathetic and supplementary. There is room enough for both, and more than for both. I have often thought it would be desirable to have in Newcastle or the northern counties some central board or council upon which could assemble the representatives of the different educational institutes, so that they might take counsel with each other in their common work. Such a council should not interfere with the independent action of any special institution. The distinctive features of none would be interfered with. All would pursue their special work in their special way, but the council might advise on the general scope of each institution, provide for harmony, and prevent conflict. Strength would be thus utilised and power gained by such a plan. The details of the scheme will be propounded with greater minuteness by honourable gentlemen around me—(laughter)—and that are to succeed me—I have no reason to say they are not honourable gentlemen. (Renewed laughter.) My friend, Mr. Chant,

here, and myself are so much accustomed to talk of honourable gentlemen in another place that we insensibly use that word. If I did not happen to be transported to another place for seven months in the year, where we have to give a large amount of both physical and mental labour for very small results, I should have busied myself actively both in the scholarship scheme and that for promoting an Education Council. As it is, all I can do is to wish both projects, if the latter be tried, a rapid and abundant success. (Cheers.)

MR. JOHN BRYSON, President of the Northumberland Miners' Association, moved :—

"That the connecting of primary schools with higher education is of national importance, and that the Stephenson Scholarship Fund in promoting that object deserves the support of all classes of the community."

(Applause.) He might say, as a miner and one more immediately connected with miners, that they required in their dangerous calling the very best education that could possibly be obtained. (Hear, hear.) He had, therefore, the greatest pleasure in recommending that these scholarships should be supported by the miners of Northumberland with that hearty generosity for which they were so famous. (Applause.) He believed that the fund would be largely contributed to by the miners of both Northumberland and Durham. (Applause.)

The REV. DR. RUTHERFORD said: Having regard to your own engagements, sir, and to the immense amount of pleasurable work that lies before this audience, I will not attempt to make any appeal for money. I feel quite sure that the money will be all right. We have had many a difficulty in the cause of education, you and I, sir, as you know in the past; but somehow or other the money has eventually come. But I will urge on the masses of the people who are interested in the matter to try to recognise the old doctrine that you and I have been preaching for more than a quarter of a century—that there ought to be a way for every boy and girl of sufficient capacity among the working people to the higher education of the country. (Cheers.) To make that way smoother and easier, to do for the future George Stephenson what would give them a longer life of active work, with all the implements of education in their hands, is, I think, a worthy aim on this memorable day.

The first thing that has to be done is to awaken in the minds of the working people an earnest desire to improve the education of their children. Upon the whole, I do not think they can do better than send them to primary schools. They are rapidly improving, and they will soon attain a power that will place them on a level with the best middle-class schools of the best character; for, unfortunately for discipline and method in our country, the middle-class schools have been only primary and secondary schools combined. Now, however, boys and girls have so advanced themselves as to be in the sixth standard, or have been taken by the hand and led on to a secondary school where there are scholarships that will enable them to go beyond that to the true academical culture. It is not a mere piling of knowledge upon human brains, but it is a quickening and drawing out of the individuality and development of the mind, giving him his mental wings, making him (as the chairman so well put it this morning) what George Stephenson was—his own true self, and not another. When that is done, then, it seems to me, we have got the true idea of our educational system. (Cheers.) I admit frankly that scholarships are not the best things all round. They are like all human things—they are imperfect, and may be abused. Boys and girls may strive after distinction merely for its own money value; but I cannot doubt that while they may do that for a short while, they will eventually recognise the greater lesson they may gather in the great truths of literature, science, and art, in the invigoration of the old nature, and the quickening of the old being. (Cheers.) I have no doubt that this scholarship scheme that you, sir, have so well put before this audience this morning, will have the effect, besides awakening in the minds of the people of these Northern parts an earnest desire to promote the education of their children, will stimulate both primary and secondary schools. It will direct the attention of schoolmasters—and I am delighted to find we have so many schoolmasters here—to the preparation of the scholars in the 4th, 5th, and 6th standards for the truly secondary school, which may be either a Science and Art School or a Grammar School. Now, our Grammar Schools should always be schools of science and art, so that the children

can have the choice of paths of intellectual distinction, and the schools of science and art ought always to be, in the truest and highest sense of the word, Grammar Schools, because literature is culture as well as science and art. (Hear, hear.) It is idle now-a-days to debate the question as to what is the best method. We find men rising to distinction by all kinds of methods. George Stephenson got his education by his own indomitable perseverance and continual pegging away. But still there is another point to be considered. University education has been a thing so far removed from the masses of the people that they have not even dreamt of it, and our duty is to bring that education to the doors of the people, and to do it in such a way that it is possible for all the schools, colleges, and academies in the North of England to have a fair field but no favour. You, sir, have wisely and well put it, that in this scheme there will be a quickening for the Durham University, with all its affiliated colleges, and for all the academies and schools of every class in these northern counties, to send their students for examination, and to take part in this great intellectual competition. The doors are absolutely open to everybody, and no one will be unasked. The examinations will be of such a character that they will absolutely test—will fairly and equally test—the attainments of each. The catholicity of the scheme, its breadth, its sympathy with the people, its tendency to raise the tone of education in these northern parts, will, no doubt, commend it to all classes of the community, and especially to that class of the community most interested in the matter. I have great pleasure in supporting the resolution. (Applause.)

On being put, the motion was carried unanimously. Other resolutions in furtherance of the scheme were adopted, the speakers being the Rev. Enoch Franks, the Rev. H. Batchelor, and the Rev. W. Hirst. On the motion of Mr. W. D. Stephens, seconded by Mr. William Trotter, of Bywell, a vote of thanks was tendered to Mr. Cowen, M.P., for presiding.

The CHAIRMAN, in acknowledging the compliment, said: My friends, Mr. Stephens and Mr. Trotter, have been very cordial, although I think they have been too complimentary to me for any services I have been able to render to this institution or to the cause

of popular education in Newcastle. But this is not an occasion for bandying compliments. Each of us who sincerely wishes to make this day's work a success has but a limited time. If we apply the same energy, or anything like the same energy, that Dr. Rutherford has exerted in reference to this institution, of which the whole northern counties ought to be proud, to this movement, it will confer lasting advantages on the entire population. (Loud cheers.)

The proceedings then terminated.

THE PROCESSION OF DRAUGHT HORSES.

One of the most successful features of the day's proceedings, and the one occupying the first position in point of time on the official programme, was the procession of working horses with lorries, springcarts, and other vehicles, through the principal streets of the town. This interesting exhibition had its origin in the successful revival of an old custom on the 30th of April, as a May-Day celebration; and so great was the desire to see a similar gathering on the first opportunity, that when the Stephenson festival was arranged one of the first things insisted upon was that a procession of working and draught horses should form part of the proceedings. To this end the Mayor, whose interest in the matter had from the first been very great, placed the organisation of the procession in the hands of Messrs. Oubridge and Sons and Messrs. John Hindhaugh and Co., Cloth Market. When the first arrangements were made, it was expected that the procession would include between two and three hundred animals, and that the work of judging could be easily and expeditiously performed. But so strongly was the matter taken up within the time allowed for making entries, that the nominations more than doubled, and upwards of 700 teams were ultimately inserted in the entry books. Judges had then to be found competent to make the awards, and willing to undertake a duty not by any means of the easiest or pleasantest character. At last the following gentlemen were prevailed upon to officiate in that capacity:—Mr. Councillor Thomas Green, Mr. Councillor C. F. Jackson, Mr. Jacob Wilson, late of Woodburn, and Mr. Clement Stephenson, V.S., of Newcastle. The complete plan of the prize-list was as follows:—

Class 1.—For the best-groomed, harnessed, and decorated draught horse, single or double yoke—First prize, a magnificent silver cup, given by the Mayor of Newcastle; second prize, a silver watch, value £4; third prize, silver tea-pot and silver coffee-pot, given by Messrs. Dunford Bros., of Mosley Street; fourth prize, £2; fifth prize, £1; sixth prize, 15s.; seventh prize, 10s.

Class 2.—For the best-groomed, decorated, and harnessed spring cart horse or pony—First prize, silver cup; second prize, £2.

Class 3.—For the best chain horse, to be shown in chain gears—First prize, £2; second prize £1.

Active preparations for the great equine procession may be said to have commenced soon after daybreak, when every now and again an anxious driver was met in the streets hurrying to the stables to give the final touch to his steed and trappings. It had been arranged that the North Eastern Railway's extraordinary team of 130 horses should lead the procession, and long before the hour fixed for a move being made—nine o'clock—Mr. Henry Tennant, Mr. Dove, and other gentlemen were quite ready for the signal. At that time the mounted marshals, Messrs. A. Tindall, H. Huntley, Crone, Moss crop, Harrison, Gradon, Ellis, Elphick, and J. A. M. Oubridge made their appearance, and punctually to the minute a team of the North Eastern Company's animals, composed of twelve splendid blacks, emerged from the yard at the Forth Banks Goods Station. On the front of the ponderous vehicle which they drew sat two of the oldest porters in the service of the company—Messrs. Duncan Campbell and Isaac Armstrong, carrying a banner of historical interest. This was none other than the flag which was used on the 9th of March, 1835, when the first section of the Newcastle and Carlisle Railway was opened out. It was again brought into requisition on the 19th of July, 1836, and the 18th June, 1838, when other parts of the line were completed for traffic. The dozen horses were followed by other teams of ten browns, eight bays, six roans, and four chesnuts, and then followed the single horses—about as fine a lot collectively as ever was witnessed. Then came the nags and rolleys of other firms; and it was estimated that the number of animals and vehicles that joined in the march was about 800. All were got into fair marching order by about half-past nine, and as the long line moved briskly along Clayton Street, the scene was one such as has rarely, if ever, been witnessed in Newcastle. The rain, which threatened to fall during the early hours of the

morning, fortunately kept off, the sun made his appearance, and the magnificent decorations of the horses were set off to the greatest advantage. Every colour in satin, silk, and velvet was brought into use by some drivers in the ornamentation of their steeds, while others had supplemented the effect produced by the gay rosettes and ribbons, and by the introduction of natural and artificial flowers, while some even went to the extent of having plumes of handsome feathers. Although such a large number of horses took part in the procession, it would be impossible to find fault with a single specimen on the ground that the harness was not cleaned or the animal well groomed. On the contrary, in all cases the chains were bright as coins newly turned out of the Mint, while the trappings, by their cleanness, gave evidence of the care and attention which had been unremittingly bestowed upon them. The condition of the majority of the animals was faultless, and although a clean white pocket handkerchief was rubbed over several of them, it remained unmarked by the smallest particle of dust or dirt. The route of march chosen was by Clayton Street West and East, Blackett Street, turning into Grainger Street, Grainger Street West, Neville Street, past Stephenson's Monument, Collingwood Street, Mosley Street, Grey Street, Shakespeare Street, Pilgrim Street, Northumberland Street, Haymarket, dispersing *vid* Percy Street. In each and all of these thoroughfares the spectators were packed in dense masses, but so admirably were the arrangements carried out by the secretaries and marshals, that there was not a hitch of any kind, and the progress was so steady and comparatively uninterrupted that the long line, which was estimated to be about four miles in length only took an hour and a half to pass a given point. The judges who had carefully noted the various points of excellence in the animals and vehicles in the course of the procession finally gave the following awards:—

CLASS 1—Draughts.—John Stoddart, driver for the North-Eastern Railway Co. (477), Liverton, 6 yrs.—1. Richard Logie, driver for Messrs. J. and N. Temperley —2. Thomas Tait, driver for Messrs. Hindhaugh and Co.—3. Wm. Ord, driver for the North-Eastern Railway Co. (589)—4. J. Fawcett, driver for the Wholesale Co-operative Society—5. J. Summerson, driver for the North-Eastern Railway Co.—6. John White, driver for the North-Eastern Railway Co.—7. Alex. Drysdale, driver for Mrs. Jane Fox—highly commended. Gilbert Randall, driver for Messrs. Carver and Co.—commended. George Sumerston, driver for the North-Eastern Railway Co.—commended. Edward Robinson, driver for Mr. Richard

Bell—commended. Richard Bell, driver for Messrs. Carver and Co.—commended.

CLASS 2—Spring Cart Horses and Ponies.—James Frazer, driver for Messrs. Jas. Coxon and Co.—1. Wm. Hornsby, driver for Messrs. Hindhaugh and Co.—2. Wm. Wright, driver for Messrs. James Coxon and Co.—highly commended. Isaac Martin, driver for Messrs. Oubridge and Son—commended. William Robson, driver for Messrs. J. and J. Meikle—commended.

CLASS 3—Chain Horses.—T. Ramsay, driver for Messrs. Hindhaugh and Co.—1. E. Black, driver for the North-Eastern Railway Co.—2. Wm. White, driver for Mr. David Wright—highly commended. J. F. Costley, driver for Messrs. Oubridge and Son—commended. George Forster, driver to the North-Eastern Railway Company—commended.

Two extra money prizes were collected by the marshals for competition by mules and asses that had taken part in the procession, and in this event Henry Snowdon, driver for Mr. James Allen, was placed first, and James Cameron, a knife-grinder, second.

CORPORATION DRAUGHT HORSE COMPETITION.

In connexion with the Centenary Draught Horse Procession, Mr. Councillor Ellis offered prizes to be competed for by the cartmen of the Corporation. Owing to the heavy programme that had to be gone through on Thursday, the judging in this contest was completed on the previous evening, in the Corporation yard, West Walls. The prizes were given by Councillor Ellis for general cleanliness, good grooming, and cleaning of harness. Messrs. C. Stephenson and Councillor T. Green acted as judges. The number of Corporation horses at present is 58, and 57 of these turned out for competition, only one horse being in the stable. They were divided into two classes, one set of prizes being competed for by night working horses only, and the other being open to all. The night horses were judged first. Of these there were twenty-three. After careful inspection on the part of the judges, the prizes were awarded as follows:—1st, 7s. 6d., James Jeffrey, black horse Tipler; 2nd, 6s., James Guthrie, brown horse Danger; 3rd, 5s., John Winship, bay horse Turpin; 4th, 4s., F. Rutherford, brown horse Tiger; 5th, 2s. 6d., David Orchardson, brown horse Doctor; highly commended, Thomas Wilson, grey horse Rattler. The general competition, which was taken part in by the whole of the 57 horses, resulted as follows:—1st, £2, Richard Hall, brown mare Gip; 2nd, £1 10s., Ralph Wilson, bay horse Butcher; 3rd, £1, John Corbett, bay horse Lofty; 4th, 15s., James Jeffrey, bay horse Tipler; 5th,

10s., Richard Waller, bay horse Lion ; highly commended, James Guthrie—Butcher, and F. Rutherford—Tiger ; commended, T. Wilson—Rattler, and John Robson—Roger. The judges were much pleased with the general condition of the horses.

DECORATIVE ENGINE COMPETITION.

In close keeping with the occasion of the Centenary, the Mayor of Newcastle had offered a series of three prizes of £5, £3, and £2 respectively, for the best decorated passenger engine leaving the Central Station during the day. It would seem, however, that in the hurry and bustle consequent on the enormously-increased traffic, there had been some confusion as to the judging, and no awards have yet been announced. Probably there would be well on to a hundred engines at the Central Station on Thursday, and a great portion of these were gaily and artistically ornamented.

A somewhat similar competition took place in connexion with the employés of the Blyth and Tyne Railway at the railway station in New Bridge Street. The judges were Mr. William Brydon, of Gosforth ; Mr. John Wallace, engineer, Backworth Colliery ; Mr. Addison Potter, jun., Shire Moor. The prizes were awarded as follows :—Neatest and cleanest passenger engine in steam—Prize won by No. 1,330, running between Blyth and Newcastle ; driver, John Rutter, Blyth ; fireman, John Henderson, Blyth. Best decorated passenger engine—No. 1,310, running between Morpeth and Newcastle ; driver, William Weatherby, of Newcastle ; fireman, T. Sharp. Best decorated and cleanest mineral engine—Two competed, and the prize was divided.—No. 1,338, John Finlay, driver, and Patrick Burke, fireman ; and 1,320, Benjamin Levison, driver, and George Marshall, fireman. Neatest and cleanest porter on duty—Prize won by Porter Charles Liddell, New Bridge Street. Prize for greatest activity in mounting a carriage, placing the plug in the lamp-hole, and descending again—Won by Porter Patrick Kelly, New Bridge Street. Neatest and cleanest ticket collector—Prize won by Ralph Crompton, New Bridge Street.

VISIT TO STREET HOUSE.

PLANTING OF A MEMORIAL OAK.

One of the most interesting and touching incidents of the Centenary was that connected with the pilgrimage made to Street House, the birth-place of George Stephenson, near Wylam. For the accommodation of the gentlemen invited to take part in this portion of the proceedings, and afterwards to witness the procession of modern typical engines, a special train, consisting of nine saloon carriages, and in charge of Cuthbert Williamson, the oldest guard on the North Eastern system, had been provided. The train steamed out of the Central Station shortly after half-past nine o'clock, and among the passengers who occupied seats in the carriages were :—The Mayor of Newcastle (Mr. Ald. Angus), the Sheriff (Mr. Thos. Richardson), the Under-Sheriff (Mr. J. A. D. Shipley), the Town Clerk (Mr. H. Motum), Ald. Wilson, Ald. Hedley, Ald. J. O. Scott, Ald. Cail, Ald. Milvain, Ald. Cowen, M.P., and Ald. Forster ; Councillors W. H. Stephenson, McAnulty, H. Clapham, R. H. Holmes, H. W. Newton, R. Cook, Dean, Hepworth, Cutter, Wilson, B. C. Browne, Barkas, T. Gray, J. G. Youll, Nelson, Sanderson, Ritson, W. Easten, W. Smith, T. B. Winter, Bowden, W. D. Stephens, Scholefield, Milling, Sutton, Rowell, Dobson, Stout, Quin, Nelson, Carr, R. Johnston, and Owen ; Sir M. W. Ridley, M.P., Sir George Elliot, Messrs. John Rogerson, George Luckley, J. R. Proctor, James Newton (Calcutta), Mr. J. J. Dent-Dent (Chairman N.E.R.), Dr. Bruce, the Mayor of Sunderland (Mr. W. Wilson), Mr. C. M. Palmer, M.P., Mr. I. L. Bell, Mr. J. L. Wharton, Mr. H. A. Adamson (Town Clerk of Tynemouth), Mr. R. C. Clapham, the members of the Belgian deputation (M.M. Léon Bika, Henri Goudry, and F. Van der Sweep), Mr. F. C. Marshall, Capt. F. Smith, Mr. T. E. Harrison (Engineer N.E.R.), Mr. A. Harrison (District Engineer N.E.R.), Mr. J. P. Mulcaster, Mr. P. J. Messent (engineer Tyne Commission), Mr. Edward Savage, Mr. R. Welford, Mr. R. Urwin, Mr. Greenwell (President of Institute of Mining Engineers), Mr. Henry Tidswell, Mr. J. H. Amos, Mr. J. J. Pace, Mr. Godfrey Smith (passenger superintendent N.E.R.), Mr. Henry Tennant (general manager N.E.R.), Ald. Shotton (Tynemouth), Mr. W. Cochrane, Mr. E. Fletcher, Mr. Haswell, Mr. J. C. Laird,

Captain Maddison (Master of the Trinity House), Capt. F. Smith (secretary of the Trinity House), Mr. Thomas Harrison (of the Mersey Dock, Liverpool), Mr. Aubone Potter, Dr. Pyle (Sunderland), the Rev. Rowland East, Mr. Richardson (Teams), Mr. Lindsay Wood, the Vicar of Newcastle (Canon Martin), Mr. W. H. Budden, Mr. Cooper, Mr. T. J. Bewick, and Messrs Foreman, Crawford, and Patterson, (Durham Miners' Association). At intervals on the route of the North Eastern system as far as Scotswood, as well as afterwards on the Scotswood and Wylam railway, groups of persons assembled and gave hearty cheers as the train passed by. At Lemington salutes were fired from miniature cannon by the workmen employed at Messrs. Carr and Urwin's brick works. The train met a similar recognition in passing the steelworks of Messrs. Spencer and Sons, as well as at the colliery of Messrs. W. H. Stephenson and Co.; and, in fact, a running volley seemed to be kept up over the greater part of the journey to Wylam. Street House having been reached, the train drew up while the whole company alighted. The cottage in which the great engineer was born is close to the line of railway, and it still remains in a perfect and substantial condition. It was modestly though neatly decorated for the reception of its visitors, flagstuffs, with bunting attached, being placed at each corner of the building, whilst its front and windows were adorned with a goodly supply of evergreens. Photographic pictures of Stephenson, of Street House, of the "Locomotion," &c., were also hung in frames in front of the house. Before proceeding to inspect the building internally, an interesting ceremony was performed by the Mayor. The idea of leaving some abiding mark at Street House as a record in the future of the pilgrimage made to it on Stephenson's Centenary had from the first been mooted by the Celebration Committee, and eventually it was decided that to plant an oak tree in the vicinity of the cottage would be a very fitting way of carrying out the intention. This was accordingly done by his Worship. The tree was placed in the field behind the house, some half dozen yards from the east end of the building. The Mayor performed the ceremony in due form, inserting the sapling into the place prepared for it, and fixing the soil firmly around the roots. This

done, his Worship uncovered his head, and shortly addressed the company.

The MAYOR said : Gentlemen, this tree is planted in commemoration of the birth of one of the greatest benefactors the country and the world ever saw. We are standing close to the place which witnessed his birth. He has conferred untold benefits, not only upon this district and upon this country, but upon the world at large. (Cheers.) I trust that, when his bi-centenary is commemorated, this tree will have grown, and be a monument that the people of the present day have not been unmindful of the great blessings which God, through His Providence, in raising up this man, has conferred upon the world. (Renewed cheers.) I hope the tree will grow and prosper. I have done my best to tread it down—(a laugh)—and to plant it well; and I hope that, with showers and sunshine, a hundred years hence it will be still standing. (Applause.) We are extremely obliged to Mr. Bewick for his permission, granted so generously and so freely, to plant this tree in this place. Our best thanks are due to him for the privilege he has given us of celebrating the memory of Stephenson. May his memory long be fragrant, and future generations still witness the benefits that we are this day experiencing!

THE PROCESSION OF MODERN LOCOMOTIVES.

On the completion of the pleasing ceremonial at Street House, three cheers were given by the company, who then resumed their seats, and the train proceeded on its way to Wylam, to inspect the modern typical locomotives. The destination having been reached, the passengers alighted. At North Wylam Station the Vicar of Ovingham (the Rev. W. M. Wray) was present and exhibited the registers of the parish church, which contains the entries of the marriage of the father and mother of the great engineer and the baptism of George Stevenson. The entries were as follow :—

"1778. Robert Stephenson and Mabel Carr, both of this parish, were married in this church, by banns, this 17th day of May, 1778, by me, Christopher Gregson, curate. This marriage was solemnised between us. (Signed) ROBERT STEPHENSON, MABEL CARR (X her mark), in the presence of us, JOHN SLATER and GEO. CARR." "Baptised, A.D., 1781, July 22nd, George, son of Robert and Mabel Stephenson, of Wylam—CHRISTOPHER GREGSON, minister; Jos. BELL and ROBERT BATES, churchwardens."

At this time the morning was chill and somewhat cheerless, and a slight shower of hail descended. For the expected exhibition, however, the interval of waiting was short, sixteen of the best and most attractive engines, which had been lent by the different railway companies for the occasion, being soon drawn up along the railway at the station. The order of the procession was as follows :—

1.—No. 363, furnished by N.E.R. Co., built by the company at Gateshead, express passenger engine on six wheels—four wheels coupled, 7 ft. diam.; diam. of cylinders, 1 ft. 5½ in.; length of stroke, 2 ft.; E. Fletcher, engineer. Driver, Wm. Smith; fireman, J. Bell.

2.—No. 493 (Netherby), furnished by N.B.R. Co., built by the company at Cowlairs Works; bogie passenger engine on eight wheels—four wheels coupled, 6 ft. 6 in. diam.; diam. of cylinders, 1 ft. 6 in.; length of stroke, 2 ft. 2 in.; D. Drummond, engineer. Driver, Thomas Brown; fireman, Robert Sword.

3.—No. 619 (Mabel), furnished by L. and N.W.R. Co., built by the company, standard main line passenger engine on six wheels—four wheels coupled, 6 ft. 6 in. diam.; diam. of cylinders, 1 ft. 5 in.; length of stroke, 2 ft.; F. W. Webb, engineer. Driver, James Jackson; fireman, George Bates.

4.—No. 1,521, furnished by the M.R. Co., built by Messrs. Neilson and Co., Glasgow, express passenger engine on six wheels—four wheels coupled, 6 ft. 9 in. diam.; diam. of cylinders, 1 ft. 6 in.; length of stroke, 2 ft. 2 in.; S. W. Johnson, engineer. Driver, John Chambers; fireman, T. Gotheridge.

5.—No. 664, furnished by the G.N.R. Co., built by the company, bogie passenger engine on eight wheels—driving wheels, 8 ft. diam.; diam. of cylinders, 1 ft. 6 in.; length of stroke, 2 ft. 4 in.; P. Stirling, engineer. Driver, John Jones; fireman, John Ramsden.

6.—No. 653, furnished by the L. and Y.R. Co., built by Messrs. Sharp, Stewart, and Co., Manchester, bogie passenger engine on eight wheels—four wheels coupled, 6 ft. diam.; diam. of cylinders, 1 ft. 5½ in.; length of stroke, 2 ft. 2 in.; W. B. Wright, engineer. Driver, Henry Roscoe; fireman, Robert Leese.

7.—No. 1,268, furnished by the N.E.R. Co., built by the company at North Road, Darlington, express passenger engine on six wheels—four wheels coupled, 7 ft. diam.; diam. of cylinders, 1 ft. 5 in.; length of stroke, 2 ft. 2 in.; E. Fletcher, engineer. Driver, Robert Cansick; fireman, James Harker.

8.—No. 329 (Stephenson), furnished by L.B. and S.C. Co., built by them at Brighton Works; express passenger engine on six wheels;—driving wheels (single) 6 ft. 6 in. diam.; diam. of cylinders, 1 ft. 5 in.; length of stroke, 2 ft.; length of boiler, 10 ft. 2 in.; diam. do., 4 ft. 3 in.; length of firebox, 5 ft. 3¼ in. outside; breadth of do., 4 ft. 1 in. do.; W. Stroudlay, engineer. Driver, James Every; fireman, Chas. Barber.

9.—No. 1,000, furnished by N.E.R. Co., built by the company at Gateshead; bogie tank passenger engine on eight wheels—four wheels coupled, 5 ft. 6 in. diam.; diam. of cylinders, 1 ft. 5 in.; length of stroke, 1 ft. 10 in.; E. Fletcher, engineer. Driver, M. Bardis; fireman, J. Pringle.

10.—No. 313, furnished by L. and Y. Co., built by same company; goods engine on six wheels, all coupled, 4 ft. 6 in. diam.; diam. of cylinders, 1 ft. 5½ in.; length of stroke, 2 ft. 2 in.; W. B. Wright, engineer. Driver, John Hartshorn; fireman, W. Grafton.

11.—No. 1,451, furnished by M.R. Co., built by Messrs. R. Stephenson and Co., Newcastle; main line goods engine on six wheels, all coupled, 5 ft. 2½ in. diam.; diam. of cylinders, 1 ft. 5½ in.; length of stroke, 2 ft. 2 in.; S. W. Johnson, engineer. Driver, W. Lovegrove; fireman, E. Merchant.

12.—No. 626, furnished by N.E.R. Co., built by N.E.R. Co., North Road Darlington; goods engine on six wheels, all coupled, 5 ft. 6 in. diam.; diam. of

cylinders, 1 ft. 5 in.; length of stroke, 2 ft. 2 in.; E. Fletcher, engineer. Driver, E. Robinson; fireman, J. Cheeseborough.

13.—No. 484, furnished by N.E.R. Co., built by the company at Gateshead; express goods train on six wheels, all complete, 5 ft. diam.; diam of cylinders, 1 ft. 5 in.; length of stroke, 2 ft.; E. Fletcher, engineer. Driver, J. Fairbridge; fireman, H. Watt.

14.—No. 253, furnished by L. and Y.R. Co., built by Messrs. Ritson and Co., Leeds; goods tank engine on eight wheels, six wheels coupled, 5 ft. 1 in. diam.; diam. of cylinders, 1 ft. 5½ in.; length of stroke, 2 ft. 2 in.; W. B. Wright, engineer. Driver, Geo. Hughes; fireman, F. Morris.

15.—No. 1,345, furnished by N.E.R. Co., built by R. and W. Hawthorn, Newcastle; bogie passenger engine on eight wheels, four wheels coupled, 5 ft. diam.; diam. of cylinders, 1 ft. 4 in.; length of stroke, 1 ft. 10 in.; E. Fletcher, engineer. Driver, Wm. Usher; fireman, J. Rumney.

16.—Locomotion, furnished by L. and N.W.R. Co., built by Grand Junction Railway Co., 1842; passenger engine; outside cylinders, 1 ft. 3¼ in. diam.; stroke, 1 ft. 10 in.; single driving wheels, 6 ft. diam.; leading and trailing wheels, 3 ft. 6 in. diam.; this engine has a six-wheel tender, specially constructed with tank under coupe floor; F. W. Webb, engineer. Driver, J. Kemp; fireman, W. Ankers.

The noble proportions of the engines elicited many expressions of admiration as they passed to and fro, and at the close of the procession the visitors resumed their seats for the return journey to Newcastle. On arrival at Scotswood, several members of the party descended, and made for the steamer "Charles Attwood," lying in the river adjoining the new shipbuilding yard there, the vessel having been generously provided by the Tyne Improvement Commissioners. With this exception, there was no stoppage till arrival at Newcastle, which was reached in safety shortly after eleven o'clock.

DEATH OF AN OLD ENGINE DRIVER.

The locomotives also subsequently returned to Newcastle, and remained on view during the day at the Infirmary sidings, where they found many admirers among the general public. To those more closely associated with it, a somewhat melancholy accident marred the pleasure of this part of the proceedings. Whilst preparing, a few days previously, his engine for the centenary celebration, Mr. Joseph Elliott, who had been selected to drive the leading locomotive in the procession, received injuries which unfortunately resulted in his death, on the 10th of June, at his residence, Alexandra Road, Gateshead. The lever attached to the turn-table struck the deceased in the abdomen with great force, and he lingered in great pain until the time of his death. Although but 53 years

of age, he was one of the oldest drivers on the North-Eastern line. When Mr. Elliot entered the company's service, there were only sixteen engines running on the railways under their direction, and he lived to see them multiplied nearly a hundred-fold.

THE REPRESENTATIVE PROCESSION.

The *piece de resistance* of the day's proceedings was, it need scarcely be said, the procession of representative bodies to the Town Moor. From the outset, the efforts of the executive committee were strenuously devoted to this portion of the programme, and considering the large numbers taking part in it, it passed off with signal success. Before the movement had assumed the vast proportions in which it ultimately appeared, it was thought that the procession should form a continuous body, and parade only two or three of the principal streets of the town. This was the plan pursued on previous occasions; but as the preparations for the festival proceeded and developed in interest and importance, it was found that this course could not well be followed. In the first place, the procession promised to be so large that the process of getting it into motion and afterwards to the Town Moor would have occupied more time than could be spared. Then again, the tradesmen, who had combined and raised large sums of money for the purpose of decorating their streets, objected to all this being done for nothing; and there was a greater variety of suggestions as to the route of the procession than could possibly have been acceded to. Collingwood Street and Grainger Street had both undeniable claims to form part of the route; Pilgrim Street refused to be overlooked; Clayton Street demanded to be noticed; and there was a strong rivalry between Northumberland Street and Percy Street. In this quandary, the happy and convenient expedient of dividing the procession was hit upon, and by this means all parties were satisfied. To the one half was given the title of the "Collingwood Street Division" and to the other that of the "Grainger Street Division."

THE COLLINGWOOD STREET DIVISION.

The various bodies and societies, and the workmen from the workshops of Newcastle and Gateshead and the neighbouring district, began to assemble before noon, or more than an hour in advance of the time—one o'clock—fixed for the departure of the processions; and they were arranged under their several marshals, with their bands and banners, and models and devices of many descriptions, in the streets allotted to them by the programme of arrangements. The order of the Collingwood Street division in the procession was as follows:—

FIRST NORTHUMBERLAND AND DURHAM ARTILLERY VOLUNTEERS.—Captain S. J. Nichols, Chief Constable, mounted. Under command of Lieut.-Col. Addison Potter, C.B. Band: Sunderland Division. Leader: Mr. Lax. 300 Processionists.

THE WORKMEN OF MESSRS. STEPHENSON AND CO., SOUTH STREET.—Marshal: Mr. George Montie. Secretary: Mr. George Montie. Band: First Northumberland and Durham Artillery Volunteers. Leader: Mr. Amers. Banner: Large portrait of George Stephenson on one side, and representation of modern locomotive on the other. 1,030 Processionists. The model of the Rocket heading the Processionists. Clerks, draughtsmen, &c., No. 1, boiler yard, No. 2, locomotive department, model of locomotive, banner globe. No. 3, moulders and pattern makers. No. 4, marine department, model. No. 5, smith's department, model. No. 6, brass finishers. No. 7, apprentices. Town Heralds in uniform: J. Thompson, — Carlow. Hon. Secretaries: Messrs. R. H. Holmes and John H. Amos.

MAYOR, SHERIFF, AND CORPORATION OF NEWCASTLE.—A large number of Town Councillors, preceded by private carriages. 1st carriage, the Mayor (in robes); I. L. Bell, Esq.; T. E. Harrison, engineer of North-Eastern Railway Company; and M. Vander Sweep. 2nd carriage, Joseph Cowen, Esq., M.P.; Mr. H. Tennant, of the North-Eastern Railway Company; the Sheriff (in robes); and Under-Sheriff. 3rd carriage, the ex-Sheriff; Mr. Hill Motum, Town Clerk (in robes); the Mayor of Hartlepool; and the Mayor of Middlesbrough.

THE COUNCIL OF THE MINING INSTITUTE AND COLLEGE OF PHYSICAL SCIENCE.—Carriages containing Professor Aldis, Professor Pearce, Professor Herschel, Professor Lebour, and Professor Merivale; Theo. W. Bunning, David Dale, Esq., &c.

THE COMMITTEE OF THE LITERARY AND PHILOSOPHICAL SOCIETY.—Representatives in carriages, as follows:—Dr. Embleton (vice-president), R. C. Clapham (secretary); Committee, Rev. J. Thompson, Rev. B. Christopherson, and Messrs. John Pattinson, and J. G. Dickenson.

THE FOREIGN CONSULS.—In Ald. Cail's carriage, representatives of the King of the Belgians, M. Leon Bika, chief engineer, and M. H. Goudry, chief engineer. In other carriages were Don de Colarto, C., Spain; Senor Diaz, V.C., Spain; L. Caubet, C., France; Baron de Reussado, C., Portugal; H. A. Brightman, C., Austria; G. Reid, C., Belgium; C. S. Smith, C., Russia; C. G. Young, V.C., Netherlands; T. Borries, V.C., Denmark; P. Conrado, V.C., Sweden and Norway; E. Biesterfeld, V.C., Greece.—United States, Germany, Netherlands, and Italian Consuls unavoidably absent.

THE STEWARDS OF THE INCORPORATED COMPANIES OF THE FREEMEN.—Chairman: Mr. Councillor S. Rowell. Vice-chairman: Mr. Councillor William Wilson. 40 Processionists.

MASTER AND BRETHREN OF THE TRINITY HOUSE.—Secretary: Captain Smith. Master: Captain Maddison. Deputy-Master: Captain Coates. 16 Processionists.

WORKMEN OF MESSRS. J. AND G. JOICEY AND CO.—Banner of blue silk, having

name of firm in gold letters, with fringe, tassels, &c., carried at head of men. A number of photographs showing colliery winding engines, locomotives, boilers, &c., which have been made at the works. 200 Processionists.

AMALGAMATED SOCIETY OF ENGINEERS.—Procession headed by Mr. John Burnett. Marshals: Mr. Joseph Dalrymple and Mr. John Marr. Committee: Messrs. J. Probert, D. Macfarlane, Emerson Robson, James Tate, W. J. Howitt, and Greaves. The Corbett Family Band, Newcastle, silver instruments. Leader: Mr. Corbett. 500 Processionists. Large Banner, with inscription—"United we stand; divided we fall." The Jarrow section of the Society, accompanied with Banner.

WORKMEN OF THE NEPTUNE ENGINEERING AND SHIPBUILDING WORKS (MESSRS. WIGHAM RICHARDSON AND CO.).—Marshal: Mr. R. Wilson. Committee: Messrs. Anderson, Brown, Coulson, Dickenson, Pike, Scott, Scope, Dean, Abdale, Robson, Brandon, Lidden, and Cowen. Secretary: Mr. Frank Graham. Hebburn Colliery Brass Band. Leader: Mr. Jas. Eltis. 1,200 Processionists. Banner, with painting representing King Neptune in his car, drawn by sea-horses, and attended by Nymphs. Thirteen small Gilt Figures of Neptune on poles. Smiths' Hammers; Marine Condenser; Coal-box for Condenser; Anvil; Model Propeller, with shaft to scale, complete; Model Steering Gear; Vices; Model Bellows in motion; Model Boiler, complete; Dolly for Riveters; Riveters' Hammers; Twelve Flags.

THE MAYOR OF GATESHEAD.—The Gateshead Constabulary Band—Leader, Mr. J. H. Amers.

MEMBERS OF THE GATESHEAD TOWN COUNCIL.—Ald. Affleck, Charlton, Galloway, McDermott, Robinson, and Councillors Arkle, G. Davidson, Dunn, Green, Henderson, Kent, Lawson, Montgomery, Morrison, Parkin, Penman, Rankin, Storey, Swinburne, Thompson, and Tucker. The Town Clerk, Messrs. J. D. Caris, T. Crozier, J. T. Frame, and members of other public bodies. Mr. Bower, Borough Surveyor, Mr. A. Penman. Estimated number—40.

WORKMEN OF JOHN ABBOT AND CO. (LIMITED).—Band: Newcastle Industrial School.—Marshals: Luke Turnbull, J. Robson, Jos. Richardson, Robert White, John Scott, and William Turnbull. Handsome blue banner, brass poles, with gilt letters bearing name of firm. Coppersmiths, Plumbers, Brass-finishers, Moulders, and Tinsmiths. Band: Abbot Memorial Schools.—Boilersmiths and Blacksmiths. Banner, Union Jack. Labourers. Models, 12 Bannerettes; Ironfounders, Chain and Anchor Makers, Forgemmen, Rolling Smiths, Fitters. Number—1,000.

WORKMEN OF MESSRS. HAWKS, CRAWSHAY, AND SONS.—Beamish Brass Band—Leader, Mr. John Rodham.—A five-ton Martin's patent anchor, drawn on a waggon, manufactured for the Government, and probably the largest anchor in the world. Smiths and forgemmen. Marshal: Robt. Robson. Banner—"Hawks, Crawshay, and Sons, Gateshead Ironworks." Foundry men: George Shields. Banner with pictorial representation of Sunderland Bridge. A 6½in. rolled bolt upon a waggon, one of the largest ever rolled. Old mill workmen: Edward Chapman. Family banner of the Crawshays; pictorial device—Dog standing over cannon balls; motto—"Perseverance." Batho's patent excavator, exhibited on rolley, manufactured for India, and to be used there in excavating the foundations of a proposed bridge across the Ganges, of new and novel construction. Fitters: William Armstrong and Wm. Lynn. Splendid banner, with view of High Level Bridge. Roofers: Thomas Brown. Boiler Yard Men: James Morrison. Plate Mill Workmen: R. Shanks, Ralph Georgison, J. Tucker. The beautiful silken banner of the Hawks' family, with armorial bearings, surmounted by a hawk, and the word "Strike." Painters: J. W. Robson. Millwrights: William Walker. A length of 3½in. chain with swivel, on waggon, supposed to be the largest chain manufactured, 2½ tons in weight, and proved by Lloyd's test to be capable of bearing the enormous strain of 250 tons, manufactured to the order of the Indian Government, and intended for moorings in India. Sizes of other chain, from ½ of an inch. Chainmakers: Thomas Tindall, — Gillender. Banner of Chainmakers'

Association. Masons: — Guthrie. Pattern Makers: S. Renwick, — Blenkinsop. Handsome banner, tastefully made of cut wood, drooping fringe of shavings, and surmounted with miniature models of screw moorings, inscription, "Hawks, Crawshaw, and Sons, Pattern Makers," designed and made by the apprentices. Labourers and Cartmen: J. Davidson. Organiser of this part of the procession, Mr. George Rule.—Number—1,500.

WORKMEN OF MESSRS. I. C. JOHNSON AND Co.—Band: Gateshead Union.—Marshals: J. Dean, J. Elliott, W. Cowell, W. Elliott, W. Miller, R. Masters.—Banner with trade mark of firm. Rolley drawn by beautiful greys, loaded with casks.—Number—200.

TRADESMEN OF GATESHEAD.

WORKMEN OF MESSRS. BLACK, HAWTHORN, AND Co.—Felling Band: leader, Mr. Clementson.—Splendid banner with name of firm. Draughtsmen and commercial staff. Fitters and turners: J. Clark, E. Fittes. Boileryard men: J. Hirst, M. Golightly. Pattern makers: C. Hutchinson. Marine erectors, moulders, brass-finishers. Coppersmiths, painters: J. Stainthorpe. Blacksmiths: C. Jennings. Locomotive department: R. Baptie. Model and banners. Locomotive—drawn by seven horses—mounted on crimson decked rolley, similar to one exhibited by the firm of Black, Hawthorn, and Co., at Paris Exhibition, 1878, which took first award for tank locomotives. Specially designed and contrived for light narrow gauge railways, and providing facilities for locomotive power in places where the ordinary gauge railway might be impracticable. Weight 3 tons, cylinders 5 in. diameter and 10 in. stroke.—Number 700.

EMPLOYEES OF MESSRS. GALLOWAY, SUNDERLAND ROAD.—Nail-making machine. John Kane on rolley, showing during procession the method of nail manufacture in George Stephenson's early years. A fire and nailer's "stake"; nails made from the hot iron, during the march, at the rate of three per minute. Wagon, with nail making joiners' brad machine at work, manufacturing from the cold iron 300 nails per minute; the driving power obtained from a neat arrangement of geared wheels, made to work by the turn of one of the hind wheels of the wagon. Workmen—Number 30.

WORKMEN OF MESSRS. CLARK, CHAPMAN, AND GURNEY, VICTORIA WORKS.—Marshals: John Scott, R. Middlemass, R. J. Gladstone, Wm. Tindall, J. Turnbull, J. Armstrong, T. Turnbull, J. H. Lumsden, W. Slater, J. Young, W. Frazer, E. Errington. Brass band, in naval costume: leader, Mr. Belcher. Banner, 11 ft. by 5 ft.; inscription, "Clark, Chapman, and Gurney, Engineers, Victoria Works, Gateshead." Boiler yard and smiths' shopmen, erecting shop and turning shopmen, foundrymen, pattermakers, joiners.—Number 500. Borne in this part of the procession—A large direct-acting steam windlass, adapted to work by hand from capstan when steam is not available; patentee, Emmerson Walker, London; manufactured for a large steamer at present building by Messrs. Gourlay Bros., Dundee. A common ship windlass for working by hand power, adapted to work with endless chain from steam winch; Emmerson Walker's patent; intended for new steamer building in Belgium. A large quadruple-g geared sham cargo winch, for the s.s. *City of Rome*, a vessel next in size to the *Great Eastern*, 600 feet long, and capable of carrying 1,800 passengers and 6,000 tons cargo. The winch is the seventh made for the vessel. An ordinary double-g geared sham winch for steamer recently launched by Messrs. Blohm and Voss, Hamburg. A patent vertical multitubular boiler; Cochran and Co.'s patent; intended for steamer in course of construction at Kiel. A combined steam and hand steering gear; Clarke and Furneaux's patent; made for a steamship building at Messrs. Wigham Richardson and Co.'s yard, Low Walker. The whole of the machinery manned by sailors in naval costume. Number 450.

MAYOR, CORPORATION, AND TRADESMEN OF JARROW.—Marshal: Mr. J. Sedcole. The Corporation were accompanied by the men from the works of Messrs. Palmer and Co., Limited, Jarrow, who afterwards joined the various societies to which they belonged. First Newcastle and Durham Engineer Volunteer Band. Leader:

Mr. Thomas Bewick. Large white Banner, bearing the Jarrow coat of arms. Inscription: "*Labore et scientia*;" "Cyrue, 685," and Jarrow, 1875" (when the town was incorporated).

BOARD OF TRADE.—Men dressed in blue jerseys, white belts, and arm bands, and drawn in car by two horses. Man with diving apparatus, and man with cork jacket.

ROYAL ANTEDILUVIAN ORDER OF BUFFALOES.—Marshals: Messrs. H. Carruther, James Weatherall, H. Dunbar, and R. N. Stephenson. Provincial Grand Primo, Mr. H. Carruthers. Deputy Grand Primo, Mr. Y. Taylor. Provincial Secretary, Mr. Thomas W. Jennings. South Shields Brass Band. Leader: Mr. John Carling. 400 Processionists, with regalia. Small banner in gilt frame, and inscribed "Royal Antediluvian Order of Buffaloes, Northumberland and Durham District." Buffalo head in the centre, with inscription over the head—" *Nemo mortalium omnibus horis sapit.*" Large pair of horns fixed above the frame.

TYNE WATERMEN'S ASSOCIATION.—Marshals: Mr. Jos. Bramwell and Mr. Matthew Dodgson. Benfield Teetotal Brass Band. Leader: Mr. James Kagan. 500 Processionists. Large banner with inscription: "Tyne Waterman's United Association." One large model wherry, rigged in old-fashioned style. One model paddel tug steamer, the "George Stephenson." Three small model wherries. One keel.

THE TANNERS AND LEATHER DRESSERS OF ELSWICK LEATHER WORKS.—Marshal: Mr. Alexander Kelly. Committee: Messrs. W. Wrightson, A. Kelly, J. Tindall, W. Scott, M. Morgan, S. Parkins, J. McKay. Secretary: Mr. J. W. S. T. Cherry. Swalwell and Derwent Valley Band. Leader: Mr. John Thompson. 150 Processionists. Blue Silk Banner, inscribed in gilt letters with—"Let every man find his own work and do it": George Stephenson did his." Leather Banner, curiously and ingeniously made with Hose Pipes and Machine Driving Bands. Banner with the motto, "Nothing like Leather." Eleven Leather Bannerets of various colours.

NORTHUMBERLAND AND DURHAM MINERS.—Coxlodge.—Marshal: Mr. W. Ridley. Secretary: Mr. N. Collins. Coxlodge Brass Band. Leader: Mr. W. Maughan. 150 Processionists. Banner, with inscription—"Coxlodge Colliery," and portrait of John Bright, Esq., M.P. Medomsley.—Marshal: Mr. James Scott. 140 Processionists. Banner, with inscription—"Blessed be the day when strikes they die away. Manhood sufferage." Lintz.—Marshal, Mr. Carlin. Secretary: Mr. Cunningham. Spen Excelsior Reed Band. Leader: Mr. C. Summerside. 150 Processionists. Banner, with inscription—"Northumberland and Durham Miners. Lintz Colliery." Felling Colliery.—Marshals: Messrs. S. Ferguson, T. Hunter, and T. Owens. Secretary: Jno. Stewart. Drum and Fife Band. Leader: Mr. A. Gillao. 300 Processionists. Banner, with painting of Felling Colliery, and inscription—"United we stand, divided we fall." Mr. Ralph Howe represented the Countess of Derwentwater (Consett) Lodge, and was dressed as Robin Hood, with bow and quiver.

The leading bodies of the two divisions of the procession had to leave Neville Street, in front of the Central Station, simultaneously at one o'clock. For two or three hours prior to that time the different bodies of workmen and others had been posting themselves in the places appointed for them to wait until their turn came to fall into the line. This sight proved attractive to many thousands of persons, and from the end of Grainger Street right along Neville Street, right along past the Cattle Market the crowding was so dense that locomotion was little more than possible. As one looked

at the surging mass of human beings which covered the ground in every direction as far as the sight could penetrate, it seemed impossible that even a passage could be made for the procession when it began. The arrangements made, however, proved sufficient to overcome very easily this seeming difficulty. About five minutes to one o'clock, Captain Nicholls, attended by about a dozen mounted constables, arrived. The Chief-Constable, as head-marshal of the Collingwood Street division, took up his place at its head, and his mounted men divided themselves into two parties of five men each. One party posted themselves about 30 yards in front of Capt. Nicholls, and a constable advanced again through the crowd, cutting them in this way like a wedge. Consequently all was ready as soon as the time arrived to go on without any danger of obstruction. Punctually at one o'clock, the band of the 1st Northumberland Artillery Volunteers struck up the enlivening strains of the Grand March from "Faust," and amid the ringing of bells, the procession began to move. Instantly the vast crowd set up a resounding cheer, which was taken up and repeated along the whole route as the head of the division passed. The size of this section of the procession was materially swollen by the Gateshead contingent, the march of which from the neighbouring borough had been watched and accompanied by large crowds of people. In its progress from the sister town, this section of the procession proceeded by way of West Street, High West Street, Catherine Terrace, Belle Vue Terrace, High Street, Hill Street (at the west end of which the horses drawing machinery fell out and drew up in front of the Town Hall and in Swinburne Street, where they subsequently remained on exhibition), to the High Level Bridge; then across the bridge to St. Nicholas' Buildings (where the North Eastern Company's men fell out in order to take the place assigned them by the ballot), Collingwood Street, Neville Street, Scotswood Road, and Penn Street, where at the proper time a junction with the Newcastle procession was effected. The course of the united procession was through Collingwood Street and West Mosley Street up the west side of Grey Street, round Grey's Monument, down the east side of Grey Street, through East Mosley Street, and then along Pilgrim Street, Northumberland Street, and Barras Bridge, to the Moor. At every

part of the route great crowds were assembled, and every conceivable and accessible point whence a view could be obtained was occupied by lookers-on. At the end of the roof of the north transept of St. Nicholas' Church a number of people were posted, and this position had been secured by a photographer with his camera, ready to take views of the procession in its various phases. Mosley Street, with its luxuriance of decorations, was a charming sight, and its novelty was intensified by the numbers of people crowded at windows, perched upon balconies and ledges, or enjoying a comprehensive view from the high roofs of the houses. But the most beautiful scene of all was met with in Grey Street. The majestic sweep of this thoroughfare, and the infinite variety and lavishness of ornamentation, made the view from the National Provincial Bank one of the most magnificent description. The numerous balconies, the noble façades, and the windows were crammed to their utmost extent, and even the shop windows were utilised for the accommodation of the sightseers. Added vivacity and beauty were given to the scene by the procession doubling round the Monument, and the two lines of men, banners, &c., passing in opposite directions. St. Thomas's Church was reached by the head of the Collingwood Street division at twenty-five minutes past one. At this point, where the two divisions of the procession joined, an enormous multitude of people had gathered, and it was with difficulty that a passage could be effected. There were a great many stoppages owing to this, and it was a quarter past two before the last of the Durham miners had passed this point. Thus the time occupied by the Collingwood Street division in passing this place was fifty minutes. Although the press was so great here, the order maintained by the people was remarkable, and there was not a single incident that could be said in any way to mar the proceedings.

GRAINGER STREET DIVISION.

The marshalling of the twenty separate bodies composing this division was proceeded with in a very business-like and expeditious manner, and perhaps with the exception of Clayton and Newgate Streets, the process of getting ready to fall into their proper posi-

tions was performed in comparative quiet. From the early hours in the morning, the thoroughfare of Clayton Street was well thronged with people, and when the large body of Messrs. R. and W. Hawthorn's workmen assembled at the head of the procession, locomotion was a matter of some difficulty, and needed the exercise of that useful virtue—patience. So admirably, however, were the preliminary arrangements devised and so conscientiously carried out by all concerned that some little time previous to one o'clock everything was in ample readiness for the onward movement.

Chief Marshal: Superintendent Richard Moss. Band and Regiment of the 1st Northumberland Artillery Volunteers.

MESSRS. R. AND W. HAWTHORN'S WORKMEN.—Marshal: Councillor B. C. Browne. Firm and Committee: Mr. C. H. Straker, Mr. F. C. Marshal, Mr. J. H. Ridley; Mr. J. J. Archibald, Chief Engineer, Marine Department; Mr. J. McKie, St. Peter's Boiler Department; Mr. J. H. Thomas, Locomotive Department, Forth Banks; Mr. W. H. Surtees, Forth Banks; Mr. A. Blenkinsden, Marine Engine Department, Forth Banks; Mr. John Gustard 1,834 processionists, each man bearing a memorial medal and a nosegay of hawthorn bloom. Banner, large blue silk with yellow border, bearing on the front side a representation of the first locomotive produced by the firm, the "Comet," together with the inscription, "R. and W. Hawthorn, 1835." On the reverse side was a locomotive of the present day, with the inscription, "R. and W. Hawthorn, 1881." Also the following emblems, models, &c.:—Cross formed of hawthorn foliage and blossoms. Working Model of the old "Comet." Two Models of Steamers in full work, with steam up. Three Marine Boilers. Square, Compass, and Peel. Smith's Fire, complete. Specimens of Coppersmiths' Work. Patterns. Steam Gauge. Model of a Church in Brass. Steamship with steam up. There were a number of Bannerets, bearing the following mottoes:—"He was one of us," "Thy Father's Friend, Thine Own Friend, and Thy Country's Friend—Forget not," "His Name shall be held in Everlasting Remembrance." "He Circled the Earth with an Iron Rim—the Mountains he Bored—the Oceans he Spanned—He Mounted a Steed with an Iron Limb, Played Whistle and Puff, then Flew O'er the Land." "Peace hath her Victories, not less Renowned than War." "Upon the Banks of Coaly Tyne, a Hawthorn Tree doth Stand, and o'er each Head its Branches Spread in Foliage Green and Grand. Its Roots are Healthy and Secure, the Trunk is Strong and Hale, and it shall Bloom for Ever to Come, and Weather many a Gale, And long may we in Peace and Glee, beneath its Shelter Stand to spread its Bloom and Sweet Perfume Around our Native Land." "All the Conceptions of our Mighty Thinkers would Lie in Embryo, but for Working Thinkers. But Brains and Hands in Operation have Dignified the British Nation." The whole of these inscriptions, which were in blue and white, were profusely decorated with blooming hawthorn foliage, and looked exceedingly handsome, and they were arranged by Mr. J. Gustard.

Sedan Chair, supplied by Mr. Henry Elgee. Black leather vehicle, studded with brass nails, and crimson curtains to windows; four small crimson flags on the four corners of top, with two chairmen.

The Newcastle-upon-Tyne Cab and Carriage Company showed an old-fashioned Stage Coach, with four white horses, driver and guard dressed in red coats and gold facings, carrying a number of passengers, showing a blue banner with white border, bearing the inscription, "In Memory of Old Times—1847."

THE WORKMEN OF SIR WILLIAM GEORGE ARMSTRONG AND CO., ELSWICK.—Marshals: Mr. Steel, Mr. Leithard, and Mr. Lawson. Band: The Art Gallery (dressed in blue uniform, with black facings, supplied by the firm). Leader: Mr.

J. H. Amers. About 1,000 Processionists. A large White Silk Banner, with crimson border, and blue and red lettering for the inscription "Elswick Ordnance Works, 1859, Newcastle-upon-Tyne." Second Banner, white silk, with blue border, and bearing the inscription "Elswick Ordnance Works, Smiths' Department," with the motto "By Hammer and Hand all Arts do Stand," this being beneath a picture of a man's arm, hand, and hammer, with an anvil beneath.

TYNE AND WEAR BRANCH OF THE UNITED SOCIETY OF BOILERMAKERS AND IRON SHIPBUILDERS' ASSOCIATION.—Marshal: Mr. Robert Knight. Number of Processionists: Ten Lodges, 3,000 men. The following lodges were prominent:—

Gateshead and Walker Lodge.—Marshals: Messrs. Jas. Woods, Jas. Laidman, James Liddle, J. Brooks, Steel, John Allen, and David Bruce. Band: The Wallsend Boilersmiths' Brass Band. Leader: Mr. James Wilson. Drum-Major: Mr. Michael Nesbitt. 150 Processionists. District Banner of Royal Blue Silk, with rich scarlet border and blue and white silk fringe along the bottom, with silk cords and tassels to match, the whole measuring nine feet square. On the front side was the Emblem of the Society, surmounted by the inscription "The Tyne and Wear Branch of the United Society of Boilermakers and Iron Shipbuilders," inscribed in gold and variegated letters, and the whole forming an elaborate and handsome picture. The reverse side displayed an effective and truthful picture of the Town of Newcastle, viewed from Gateshead, the principal features being the High Level and Swing Bridges, with the screw steamer *Countess* lying at the Quayside, and the Old Castle and the Catholic Church in Clayton Street, towering prominently above the back ground. Beneath this picture were the words "Unity is Strength," and above it a gold ornament. This banner was painted by Mr. Thomas S. Bowman, of New Bridge Street. There were also models borne in the procession of the "frame, block, and tools" used by the craft, the stem of a vessel, the stern of a vessel, a ship in course of construction, a ship plate and template, a banneret bearing the inscription "Success to Coaly Tyne," a riveter's set of tools, a plater's set of tools, a heater's fire in working order, a holder-up and tools, another heater's fire, more riveters' tools, and three models of ships.

South Shields Lodge, headed by their own banner, and preceded by the band of the 5th Durham Rifle Volunteers, Mr. J. Dennis, leader.

Walker Lodge.—Marshal: Mr. George Roberts. Band, the 2nd Northumberland Artillery Volunteer Brass Band—Leader, Mr. James Bruce. 390 processionists. Model of George Robert Stephenson's yacht, *The Northumbria*. Model of plate rollers, rivet hammers, midship section frame. Small bannerets. Anvil frame and model of frame, turners' tools.

Jarrow Lodge.—Marshals: A. Forrest, P. Mortimer, S. Fairs, and W. Booth. Band, Jarrow Saxhorn Band—Leader, James Lumley. 500 processionists. Large handsome silk blue banner with red border, with the inscription "United Society of Boilermakers and Iron Shipbuilders of Jarrow." Model of ship's plate and beam, bannerets, bearing suitable inscriptions, such as "Justice, Reason, and Liberty," "Peace, Harmony, and Love," "Honour Bright," "United we Stand, Divided we Fall," "United to Support, not Combined to Injure."

Hebburn Lodge.—Marshals: Messrs. James Grant and Alexander Cushing. Band, Hebburn Brass Band—Leader, Mr. John Henry Garbutt. 300 processionists. Large blue silk banner, with red border and deep fringe. A picture of an iron shipbuilding yard, and beneath it the inscription, "Success to Hebburn." Models of tools used in the work; mid-ship section frame. Second banner of blue silk, with a crimson border, with a picture of Berwick Bridge, and side pictures of a steamship and a sailing vessel with a picture of a boat race.

Byker Lodge.—Marshals: The Officers of the Lodge. Band: The Newcastle East End Band—Leader, Mr. John Richley. About 200 processionists from the Tyne Forge Works. A handsome blue silk banner, with variegated border, and bearing allegorical figures representing Labour and Hope.

THE NORTH-EASTERN RAILWAY COMPANY'S WORKMEN.—Marshal: Mr. John

Rickerby. Bands: The 5th Durham (Gateshead) Rifle Volunteer Brass Band. Leader: Mr. Beever. The 1st Newcastle Rifle Volunteer Brass Band. Leader: Mr. Potts. No. 1, Foremen, Draughtsmen, and Clerks. E. Gray, and J. Watson. No. 2, Brass Moulders, Brass Finishers, Coppersmiths, and Plumbers. G. Tuck, W. Reid, and G. Wilkinson. No. 3, Painters. W. Bowman, J. Eades, E. Turner, T. Robson, and T. Larmond. No. 4, Stores Department, Labourers and Cleaners. D. Donnelly, J. Moule, F. Mackenzie, and J. Houghton. No. 5, Joiners and Pattern Makers. G. Batie, J. Maillard, R. Mennim, A. Scott, W. Stonehouse, W. Stirling, T. Bell, W. Pigg, and J. Simpson. No. 6, Enginemen, Firemen, and Guards. W. Johnston, J. Hawdon, J. Milburn, and G. Spark. No. 7, Fitters, Turners, and Machinists. J. Dove, J. Wallace, J. Matthews, W. Garrett, E. Falcus, H. Smith, G. Armstrong, J. Senior, and G. Ruddick. No. 8, Smiths and Hammermen. J. Woodhouse, W. Muckle, T. Eltringham, H. Macklin, T. Trobe, W. Hindmarch, W. Gill, J. Kirtan, A. O'Hara, and A. Munro. About 2,000 processionists. First banner of crimson silk with yellow border, with the company's crest, which is composed of the arms of the towns of York, Newcastle, and Berwick in centre of front side, with the inscription "North Eastern Railway Company" beneath, whilst on the reverse side was the Stephenson monogram. There were also 21 other banners, bearing the Stephenson monogram, "The Carriage Department," placed over the Newcastle Arms, Union Jack, portrait of George Stephenson, York Arms, Royal Ensign, joiners' emblem of trade, Newcastle Arms, Union Jack, Darlington Arms, the fitters' emblem of trade—a hammer and file, the Berwick Arms, the blacksmiths' emblem of trade—an anvil, Union Jack, the North-Eastern Railway Company's monogram, and "Success to the North-Eastern Railway Company."

WORKMEN OF THE BEDE METAL AND CHEMICAL COMPANY, HEBBURN.—Marshal: Mr. John Rickaby. 150 processionists, each of whom wore a silver band round his helmet bearing the inscription "Bede."

WORKMEN OF WALKER, PARKER, AND CO.—Marshals: Messrs. Thos. Magnay and Thos. Veitch.

NEWCASTLE AND DISTRICT TIN-PLATE WORKERS.—Marshal: Mr. R. Spoor. About 100 processionists, each displaying a *fleur de lis* nosegay. A handsome blue silk banner bearing a trade emblem surmounting a triumphal arch, and measuring eight feet square; a tin frame displaying emblems, with blocked letters—"The Newcastle and District Tin-plate Workers" on the top of the frame. The members displayed the following productions of their trade:—A flower vase, with rose, thistle, and shamrock, all in tin; a bird-cage in yellow metal and brass wire, with blue stained glass; working model of a screw steamer; tin model of the Rutherford Schools, Bath Lane; model of ventilators; two patent meters—wet and dry; model of a tin chest of drawers; heating apparatus for garden; and two railway hand signals.

THE FRIENDLY SOCIETY OF OPERATIVE CABINETMAKERS.—Marshals: Messrs. F. Patterson, Pringle and Fawcett. 100 processionists. Banner, blue silk, with rich orange fringe, an exceedingly handsome and quaint one, bore the inscription on the front, "The Society of Operative Cabinetmakers of Great Britain and Ireland," and also three allegorical figures, representing capital and labour. On the reverse side was a square picture divided into six compartments, in which were respectively groups representing "No Employment," "Sickness," "Old Age," "Insurance from Fire," "Emigration," and "Death."

MEN OF WALLSEND SLIPWAY, accompanied by the Victoria Brass Band.—Marshals: T. Sutton, R. Anderson, P. Callochan, Wm. Wetherall, D. Steward, and D. Wilkie.

ROYAL HOTSPUR LODGE.—Marshal: J. Cooper. Committee: Officers of the Lodge: W. Stothard, N.G.; W. Geldhead, V.G.; Secretary: John Hodgson. 250 Processionists. Banner, scarlet and blue, representing on the front the Northumberland coat of arms, and on the reverse side "The Good Samaritan."

WORKMEN OF MESSRS. HENRY WATSON AND SONS.—Marshal: Thomas Walton.

Committee: Messrs. Wild, Young, Rhind, Cummings (chairman). Secretary: Mr. T. Walton. Hired band for the occasion. 250 Processionists. Yellow banner, bearing the words "High Bridge Works. Henry Watson and Son, Newcastle-on-Tyne." The men also carried bannerets and emblems of industry.

THE OPERATIVE PLUMBERS' ASSOCIATION OF GREAT BRITAIN.—Marshal: Benj. Hardcastle. Committee: Messrs. W. Elliott, W. D. Mustan, George Taylor, John Brown, B. Scott, Robert Gladstone. Secretary: B. Hardcastle. Chester South Moor Band. Leader: Mr. Robert Rowell. 60 Processionists. A splendid green silk banner, with yellow border, containing the inscription "Newcastle Operative Plumbers' Society."

THE AMALGAMATED SOCIETY OF TAILORS.—Marshals: John MacLarance, Robert Calderwood, James Bell, and Charles Richardson. Committee: Messrs. Davie (President) Robert McCartney (Secretary), Gilbert Hind, James C. Laird, Thos. Walker, Peter Trainer, Wm. Brown. Spinks' Band. Leader: Mr. Spinks. 200 Processionists. Crimson and yellow banner, with the Tailors' Coat of Arms on one side and Adam and Eve on the other; likewise having the inscription "*Concordia parvæ res crescunt.*"

NORTHUMBERLAND AND DURHAM MINERS' ASSOCIATION.—Marshals: Messrs. Bryson, Nixon, and Patterson. The Felling Drum and Fife Band—Leader, A. Gilin. 800 processionists from both counties. Red silk banner, with white border, representing Felling Colliery, and bearing the motto, "United we Stand, Divided we Fall." On the reverse side was an illustration of a Master and Miner in Consultation. Medomsley Band. Blue silk banner, with white border and deep blue fringe, with motto, "Arbitration, Education, and Conciliation." On the other side was the picture of "The Lion and the Lamb," with the words, "Blessed be the day when strikes they die away."

COXLIDGE BRANCH OF THE NORTHUMBERLAND MINERS' ASSOCIATION.—Marshals: John Howie, Joseph Henderson. Chas. Wheatley. Coxlodge Colliery Band—Leader, Mr. Maughan. Committee: George Marley, Richard Meins, Henry Metcalf, Thomas Clough, Joseph Hodgson, Thomas Hodgson, William Charlton. Secretary: N. Collins. Treasurer: C. Wheatley. Green silk banner, with yellow border and green fringe. On the front was a portrait of John Bright, M.P., and on the reverse side a representation of the Joint Committee of the Miners in Council. Beneath was the following:—"Only the actions of the just smell sweet and blossom in the dust."

THE DURHAM COUNTY COLLIERY ENGINEMAN'S AND MECHANICS' ASSOCIATION.—Marshals: W. H. Lambton and H. Hann. Secretary: W. H. Lambton. President: H. Hann. Committee: M. Hann, T. Hindmarsh, W. H. Lambton, John Robson, N. Young, Jos. Routledge, and M. Nicholson. Beautiful green silk banner, with red border and gold fringe, bearing four illustrations, viz., the figure of "Justice," Stephenson, Watt, a locomotive, and the colliery winding. At the bottom there was a scroll bearing the words "Every man is a master and servant."

NORTHUMBERLAND AND COLLIERY ENGINEERS.—Marshals: Mr. James Turnbull and Mr. Donaldson. Secretary: Mr. J. T. Shields. President: James Turnbull. 60 Processionists. Green silk banner, with white fringe and border. On the front was a view of Barrington Colliery, and on the other side were portraits of Stephenson and Watt together, with the New Hartley pumping engine. Beneath this a scroll with the device "All men are brothers; let them be true to each other."

SOUTH SHIELDS TRADES COUNCIL.—President: Cuthbert Miller. Secretary: John Yeaman. The representatives, who followed in a conveyance, numbered 20, and represented ten trades.

THE NORTHUMBERLAND DOCK LODGE TRIMMERS AND TEEMERS' UNITED ASSOCIATION.—Marshals: Matthew English, R. Bainbridge, G. Rutherford, and N. Lee.

THE MEMBERS OF THE SALVATION ARMY.—Chief Marshal: J. Dowdle. Red Banner, with blue border, bearing the inscription "Salvation Army;" also bannerets with Scriptural quotations. There were 700 Processionists.

With military-like punctuality, the Grainger Street division of the procession began to move away from the foot of Bewick Street to the inspiring strains of the quick march "Fraternitie," played by the band of the Newcastle Engineers. From Bewick Street, the bodies marched round to New Grainger Street, along to Nelson Street, at a steadily uniform pace, though the whole of that portion of the route was lined on both sides by densely-packed crowds of spectators. The sight of the richly, and, in some sections, profusely decorated procession stealing along the well-kept space between the surging lines of holiday-attired persons was exceedingly impressive; and the stirring sounds of the music from the numerous bands rising in harmonious sounds above the hum and hurraing of the populace heightened the effect considerably. The scene all up Grainger Street was very fine. Every window in the numerous magnificent buildings was thronged with gaily-dressed people, who from their elevated positions commanded a splendid view of the moving masses beneath. The large stand erected on the new gas office building on the east side of New Grainger Street, was likewise packed with sight-seers, and a nice effect did the closely-seated group produce. Along the older part of Grainger Street the masses seemed to thicken, and similar groups of interested faces peered from out the numberless windows on either side. The two long balconies in front of Messrs. Milling's establishment were filled, as were also the windows of Messrs. Hill's prominent place of business; and the rows of spectators standing in bold relief among the beautiful drapery and festooning which adorned the fronts of these buildings was indeed a pleasing sight. Upon the whole, this portion of the route formed the most picturesque and imposing of the entire line of march. The corner of Nelson Street, up which the procession turned out of Grainger Street, was reached in fifteen minutes, showing that the progression was steady and by no means slow, considering the impediments in the crowded streets. From this point, however, the people lining the side-walks of the thoroughfares were materially lessened, and the labours of the various marshals were in a corresponding degree lightened. Arriving at the top of Nelson Street, a turn was made into the eastern part of Clayton Street,

and up Blakett Street into Percy Street. All along the windows of the houses on both sides were occupied by spectators. The front of the Irish Institute was quite alive with living masses, while the quaint little old dwellings at the foot of Percy Street was rendered quite attractive by the array of beaming faces smiling forth from the antique little windows. The progress up Percy Street, was more rapid, and by twenty-five minutes past one o'clock the head of the procession reached the foot of St. Thomas' Street. Here the broad roadway was only thinly covered with spectators, and an excellent opportunity was afforded to note the varied characteristics of the several bodies as they filed past. Leaving the foot of St. Thomas' Street, the procession wended its way along towards Barras Bridge, where the quietude which had characterised the march up Percy Street gave way to dense crowds of people, who filled every possible foot of ground whence a view of the "show" could be had. The lamp-posts, drinking fountains, railings, &c., were covered with "seething masses of humanity" grouped together with a view of witnessing the junction of the two processions. Passing along the north side of the Barras Bridge, the Grainger Street division—or at least the major portion—passed by way of Back Eldon Street to the Moor. Ere the Tin Workers' Association reached the foot of Back Eldon Street, the immense body of spectators seemed to have broken ground and rushed up to the rallying places round the platforms, and the workers in tin and all that followed them were marshalled to proceed up the North Road to the Moor, which was done in good order.

MEETINGS ON THE MOOR.

For the accommodation of the meetings, which it had been arranged should be simultaneously held on the Town Moor, three strong platforms, about 200 yards apart, had been erected. No. 3 was situated slightly to the north of the old water reservoirs, and facing the North Road. No. 1 fronted the open space between the Bull Park and the southern angle of the reservoirs. Lastly came platform No. 2, which stood still further to the southern end, and almost in a line with the other two erections. Round the

several platforms the crowds gathered early, and they waited patiently until twenty minutes to two o'clock, when the head of the No. 1 procession, marching by the North Road, came into view. In a few minutes the entire aspect of the place was changed. The Artillery Volunteers, who headed the procession, marched across the Moor round by the No. 2 platform, and on to the westward, a moving mass of colour. Behind them then came the civilian part of the procession, with bands playing and colours flying, and surrounded by a vast concourse of people. The Grainger Street (or No. 2) procession, coming by Back Eldon Street, next arrived on the ground. This latter soon divided into several sections, each moving towards different platforms, and the brilliancy of the spectacle was thus further enhanced. The Collingwood Street procession was almost an hour in reaching the platforms, and during that time the air quivered again with the sound of martial music. The Grainger Street division, although not moving in continuous line, was not by any means so long in reaching the trysting place, and to this circumstance is perhaps to be attributed the commencement of the meetings before the whole of the processionists arrived at the platforms. It was most difficult to calculate the number of people assembled on the wide expanse of the Moor at the time that the proceedings were in full swing, but the estimates varied between 100,000 and 120,000 persons.

NO. 1 PLATFORM.

THE ENGINEERS.

This platform was assigned to the speakers addressing the men employed in the engineering trades, and the gathering in front of the structure numbered altogether about 5,000 persons. The meeting was constituted immediately on the engineers arriving upon the ground, and amongst those upon the platform at the time were Mr. Joseph Cowen, M.P. (who on his arrival was received with enthusiastic cheering), Mr. John Burnett, secretary of the Society of Amalgamated Engineers; Mr. W. J. Howat, secretary of the local branch of the society; Mr. B. C. Browne, of Messrs. R. and W. Hawthorn's; Mr. J. D. Archbold and Mr. T. H. Thoms,

managers of Messrs. R. and W. Hawthorn's; Mr. H. W. Surtees, one of the officials at Messrs. Hawthorn's; the Mayor of Jarrow, who wore his official robes and chain; Mr. Ald. Berkeley, of Jarrow; Mr. Platt, of the Great Eastern Railway Company's service, Peterborough; Mr. W. J. Farrell, of Sunderland; Mr. Hoffmann, of Winterthur, Switzerland; Mr. Thomas Herdman, Newcastle, &c., On the motion of Mr. B. C. Browne, Mr. Cowen, M.P., was voted to the chair.

The CHAIRMAN, who was received with cheers, said: This is a duty I did not calculate on when I came on to the Moor. I had no idea that I would be expected to take any part in this section of the day's proceedings. It was understood that these platforms were to be assigned to the representatives of special trades, and that this one was to be set aside for the engineers. By accident I met my friend, Mr. Burnett, who is in much the same position of uncertainty as myself. We are here to a large extent in your charge, and under your direction. Any way, as we must begin, and as we are old acquaintances, there is no necessity to be squeamish. With your permission, and with the sanction of the gentlemen around us, we will make a start, and probably in a short time the procession, or rather the greater portion of it, may have reached the spot. (Hear, hear.) It was said on a historic occasion, that when a distinguished man's monument had to be described, persons who wished to discover it had but to look round. George Stephenson's monument is stamped on the scene before us—(applause);—in the throbbing hearts of this sympathetic throng, in the imposing display of mechanical skill and scientific knowledge that we have witnessed in the procession of locomotives to Wylam; and in the animated landscape, rich in the result of his labours that lies before us. (Cheers.) Thirty years after his death, we have seen the chief town of his native county wreathed with garlands in his honour, and vocal with enthusiasm for his his genius. (Cheers.) That machine, the monarch of machines—which he perfected, at least, if he did not invent, and such exquisite examples of which we have just beheld, so supple, so strong, yet so artistic, more than realises the supernatural power that was meditated by Eastern magicians. Poetry,

in all the wanderings of her heroes, never fancied anything more marvellous. And the expanse of country that is now before us—what does it not owe to the discoveries and labours of George Stephenson! (Cheers.) Heath-clad hills, pestilential marshes, unprofitable fells, that before the era of railways were as desolate as deserts, are now thronged with busy life and resonant with the multitudinous hum of beneficent industry. (Cheers.) We have achieved greater material success within the last half century than was achieved in ten centuries previously. (Applause.) Forests have been felled, earth has been quarried, rivers have been bridged, valleys have been spanned, and cities have been built. We plough our way across the ocean, in spite of tide or tempest, bearing the produce of our manufactures, and bringing in return the wealth and luxuries of every quarter of the globe. (Cheers.) Steam is our true elemental spirit. Its achievements surpass the gorgeous ideas of ancient imagination. (Hear, hear.) The ancients had four genii—earth, air, fire, and water. But they were always in conflict. Their powers could never be subdued or organised to useful purpose. Steam combines all these powers in one, and a child may control them. (Cheers.) All arts and sciences are mutually dependent. They abound in connexions and relations. Accumulations of observations, stores of knowledge, however, need arrangement and condensation. No one man can, in his few and fleeting years, master all results if he had always to start afresh. Theory is the aggregation of practice until a general principle can be deduced from it. (Cheers.) The Greeks had a toy which they called the ball of *Æolus*. It was a metallic globe with a long spout, and when water was put in one end and heat applied, steam was generated and motion promoted at the other end. I am speaking from recollection, but I believe there was once a Spanish captain who, centuries, at least generations ago, devised a plan by which a vessel might be propelled by vaporous power. The clever but eccentric Marquis of Worcester elaborated and amplified this idea. Many centuries ago, Friar Bacon predicted that we should have steamships and railways. Erasmus Darwin and other men of last century foretold the outcome of Stephenson's labours. But all these experiments and speculations were

*

but the faint glimmer of the twilight. They were the dawn before it brightened into day. The ball of Æolus had in it the principle of the locomotive. But it was useless, because there was no man practically acquainted with mechanism to apply it or to utilise the incipient discovery. There were glimpses of the railway system before his day. Other men started the locomotive, and with some success, earlier than Stephenson. The Cornish engineer, Trevithick, our own Mr. Hedley—whose labours and whose discoveries I have often thought received very insufficient recognition, were busy with locomotives before Stephenson. (Hear, hear.) But it remained for George Stephenson to collect the results of previous experiments and give to them unity, cohesion, simplicity, and practicability. (Cheers.) This is pre-eminently a practical age, and George Stephenson was pre-eminently a practical man. We have cycles of temperature—a series of wet succeeds a series of dry seasons. We have ages when men are specially engaged in intellectual speculation and contemplation. Such ages or periods are succeeded by seasons devoted to giving practical effect to past speculation and theorising. The period immediately previous to Stephenson was a contemplative or speculative age. The age he lived in and helped to form was a practical one. It is the age of the schoolman, the dreamer, or the æsthetic. But of practical work by which the material, and with the material, the social and moral welfare of the people were advanced. His labours, and the labours of men like him, have been the means of facilitating intercourse between nations by cheapening the means of transit, by uniting more closely man and man. They have indefinitely increased the means of human happiness and lightened the load of human misery. (Cheers.) It is for this that we honour the memory of George Stephenson, and wish to place his character before his fellow-countrymen as a model and an example. (Cheers.) It is more especially incumbent on Tyneside now to do homage to the fame of one of their own people. He shed lustre on our country, distinction in the place of his nativity, and untold benefits on the whole human family. The friends who are now to address you will submit resolutions conceived in this spirit and for this purpose. I would now simply ask my friend, Mr. Burnett, whom we are all

glad to see again in Newcastle, to move the first resolution. (Cheers.)

Mr. BURNETT said : Mr. Chairman and gentlemen, I am glad to be with you on an occasion so auspicious as the present. It reminds me somewhat of old times—(laughter and applause)—when the processions of engineers to the Town Moor were of almost weekly occurrence, and we became almost as well able to march in the ranks as if we had been trained by military tutors. (Laughter and applause.) That was an occasion upon which the working engineers of Newcastle and the capitalists of Newcastle were on opposite sides, fighting, if I may use the expression, one against the other. But on this occasion there is no diversity of opinion between us. Both of us are meeting to celebrate the one-hundredth birthday of a man who was an honour to our class, and who has been an honour to their class ; for George Stephenson, although promoted in after life, was essentially, during the whole of his career, a man of the people. (Cheers.) Great inventors, as a rule, are not born in the purple. You are aware that the fustian and canvas clothes of George Stephenson were often blackened, and his hands and face grimy with the grease of his engine, as ours have been. (Cheers.) I think that when the hundredth birthday of such a man arrived it was absolutely the duty of this district to celebrate it in some way or other. The great career of George Stephenson was one most fitly celebrated in this town when, a few years ago, a monument was erected to him in the Spital. We now celebrate the centenary of his birthday, and I venture to say that the publicity of this celebration, the circulation of the thousands of his portraits we have seen to-day, in the honour we have done to his name as a citizen, will do more to perpetuate his memory and hand down his name to future generations than any celebration that has yet taken place. I have seen many demonstrations in Newcastle, but I do not think I ever saw one equal to this in the spirit of enthusiasm it has engendered. (Applause.) And I believe the cause to be worthy of that enthusiasm. We can easily see that the cause is worthy of the enthusiasm if we cast our eyes back to the state of things that existed in this and other countries before the birth of Stephenson. The transport of goods of any kind was a

work of great labour and considerable difficulty. Coals had to be transported from the pits to the consumers in packs upon horses, and the rate of the cost of coal at that time amounted to something like 2s. 6d. per ton per mile. Fancy the increase of the price of coal which the cost of carriage at that time made ! After railways, or rather tramways, more properly speaking, were introduced, the cost of carriage amounted to something like a fraction of a penny per ton per mile. When George Stephenson appeared upon the scene, he was just the man suited for the occasion. The occasion was made for the man : the man was ready for the occasion. Had he been born, say, ten years later some one else would, no doubt, have carried off the glory of perfecting the locomotive engine ; but Stephenson came exactly at the right time. As your chairman has eloquently said, by looking at the results of previous inventions he was able to perfect the engine, and to place within the reach of other engineers the great capabilities by which the engine has since been further developed in its different parts. Before the birth of George Stephenson the mail coach was the only means of conveyance from one part of the country to another ; and even at that time England was the envy of the surrounding nations on the Continent, because of the perfection of her system. (Laughter.) By this mode of travelling, communication between Edinburgh and London and London and Edinburgh was only possible once a month. It took the stage coach ten days in summer and twelve days in winter to go the distance. Now the distance can be covered in nine-and-a-half hours. (Cheers.) I do not think there is any fact that I could state to you which could better illustrate the extent and nature of the great benefits that George Stephenson has conferred upon the community. After tracing the leading incidents in the career of the great engineer, the speaker continued : What did George Stephenson do for the world ? In the first place, he caused the commencement of a great railway system which required the employment of millions of capital and the employment of hundreds of thousands of workmen. To go no further back than 1841, I find the total capital invested in the railways of the kingdom amounted only to 65 millions of money, but in 1879 the capital of the railway companies of the kingdom amounted to 717

millions of money. Now, this amount of capital could not be invested in any way to secure greater blessings to the industrial parts of the community so well as in the constructing of railways—which require that rails should be made, engines be built, and carriages constructed, all of which necessitates the employment of hundreds of thousands of workmen. Even at the present time the railways require, to keep them working and in order, the labour at least of 500,000 workpeople. Now, supposing the railway system of the country could be stopped to-morrow, what would be the result? There would be nothing for these 500,000 workpeople to do, and they would have to find labour in other markets. It would be a general calamity to the whole industrial community. Not only had rails to be laid down for railways, and engines and carriages made, but railways called forth a great number of other collateral industries to provide for the working of the railway system. We know that for a penny postage stamp we can have a letter sent to us from London or elsewhere; but that would have been impossible but for the locomotive engine. What would become of our facilities of communication for pleasure or for business, but for the locomotive engine? The time that has been saved in the transaction of the business of the country by the locomotive engine is almost incalculable; and a saving of time is a saving of money. When you save money you begin to amass capital, which is used for the further employment of labour. In this way the work of George Stephenson has not only benefited capitalists, but the whole industrial order, by calling other labour into requisition. Therefore, as workmen and as capitalists, it was almost our duty to come here to-day to celebrate, on his hundredth birthday, the greatness of the merits of George Stephenson. (Applause.) Mr. Burnett concluded by moving the following resolution:—

That this meeting of the people of Newcastle and the neighbouring counties of Northumberland and Durham, met to celebrate the centenary of the birth of George Stephenson, desire to mark, in the most public manner, its deep sense of the benefits which have accrued not only to the North of England, but the world at large, from the results of the application of his great genius and indomitable perseverance, which led to the discovery of the locomotive and the subsequent development of the railway system; and further records the pleasure it has afforded them to do honour, by the celebration to-day, to the memory of the "Father of the railway system."

Mr. W. J. HOWAT, Local Secretary to the Amalgamated Society of Engineers, seconded the resolution.

The MAYOR OF JARROW, after a few introductory remarks, said: I asked myself the question as we came along, Why is it that we have met together? Why is it there is so much enthusiasm displayed throughout the length and breadth of these two counties? Why is the heart of the people so deeply stirred within them to do honour to the memory of George Stephenson? What good will it do to do honour to the memory of George Stephenson? George Stephenson is in his grave, and this demonstration cannot do him the slightest good. But, I suppose it will do a great deal of good to the people who are now living—(hear, hear)—if we hold up the memory of this great man as an example to those I see before me. This is one of the grandest sights I have witnessed, and I am very happy to say I thoroughly and heartily approve of it. We have read of grand pageants and great demonstrations in honour of men who have achieved some military victory, but I have read of no man whose memory is so worthy of the splendid pageant we have seen to-day as that of George Stephenson. (Cheers.) Mr. Burnett spoke to you about what George Stephenson had done; how he had worked by day and studied by night; and I would impress the splendid example of Stephenson upon every working man within hearing of my voice, and upon every working man who lives within the limits of these three kingdoms. George Stephenson, no doubt, had a magnificent brain; he, no doubt, had very great capacity and splendid organisation; but I have not the slightest doubt that there are some George Stephenson's in this assembly. (Hear, hear.) The difference between the man to whose memory we are now doing honour and many a clever man, is that he had the capacity to deny himself, and had the lasting power that enabled him to overcome the difficulties by which he was surrounded. The result of his actions has been one of the greatest blessings, not only to our own country, but to the world. (Cheers.) When we come to calmly consider the number of millions of money expended upon the railways of the country, the vast trade the railway system has opened out, and the great amount of material comfort in civilised life which has resulted from the self-denying perseverance of this one man, it is certainly a splendid

example for every one of us to follow. George Stephenson is in his grave, and not quite half a century has swept over that grave, yet we have heard from the mover of the resolution what a vast amount of good has already accrued from his labours. If so much good has been done in the space of about forty years, how much good may we expect to accrue in the space of the centuries that are to come? (Hear, hear.) Of course, we shall never forget William Hedley, because, although George Stephenson had the capacity to take up the various threads of the cogitations of the minds of other men, the grand idea of locomotion by means of steam was first conceived by William Hedley. (Hear, hear.) William Hedley and George Stephenson, and other eminent engineers whom I might mention, have done more to increase the substantial comforts of the people, to bring food to the poor and wealth to the rich, to create peace and amity, and bring the nations of the earth together, than the united efforts of poets and legislators and warriors in all the ages that preceded them. (Loud cheers.) I cannot say more, but I have the heartiest pleasure in supporting the resolution. (Cheers.)

The motion was unanimously agreed to, and on the call of Mr. B. C. Browne, three lusty cheers were given for Mr. Cowen.

The CHAIRMAN, in response, said: I thank you for your recognition of my small and very imperfect services. One point with respect to George Stephenson's character came into my mind while Mr. Burnett was speaking. He owed his success entirely to his own exertions. He conceived an idea in his own way and worked it out by his own energy. He was not indebted to gentlemen passing resolutions in his favour—(laughter)—he was under no obligation to wealthy patrons—at least in his early start. His labours redound to his own honour, to his indomitable energy, to his untiring industry. That is the lesson we may take from his life, and all may copy it. One other observation. The proceedings of to-day have so far passed off with unmixed satisfaction and pleasure to all concerned. There has been so much good nature, and such a universal expression of good feeling from one end of the proceedings to the other. At first the only thing in the arrangements that jarred on my sense of appropriateness was the proposal, that I am glad to say was not adopted, viz., to invite some dignitaries to

come down to Newcastle upon this occasion. (Cheers.) The most satisfactory reflexion, to my mind, and to all concerned in this proceeding, is that it has been initiated, that it has been carried out, and that it has been completed by Tyneside men—(cheers)—the very class from whom George Stephenson sprang. As I came along the streets to-day, I saw a very simple but a very expressive motto upon a piece of white calico carried by children; it was "One of us." The idea expressed in those simple words typifies and exemplifies all the thought that is animating this great gathering. We recognise George Stephenson's great merit, and we are proud that he was not only a Tyneside man, but a working man. (Cheers.) I trust, as I said before, that our proceedings will close as they began—in harmony and good temper, and that this day will be remembered, as I am sure it will, as a red-letter day in the annals of this locality. (Cheers.)

Mr. BURNETT, in answer to loud calls, again came forward, and said he could not leave them without expressing the great gratification it had afforded him to be present that day. He was glad to see Mr. Cowen there with them. (Cheers.) They, as engineers, knew the men who stood by them, and by the working classes generally, and he trusted they would never forget the debt of gratitude they owed Mr. Cowen. (Cheers.)

The gathering then dispersed.

NO. 2 PLATFORM.

THE MINERS.

The platform No. 2 was set apart for the miners of Northumberland and Durham. On the motion of Mr. Nixon, seconded by Mr. Patterson (Durham), Mr. John Bryson, president of the Northumberland Miners' Association, was unanimously voted to the chair. There were also on the platform, Dr. Trotter (Choppington), Mr. Glassey, Mr. J. Howie, and others.

The CHAIRMAN, in introducing the proceedings, said, that, as miners, they had the honour of having given birth to George Stephenson from their ranks. (Cheers.) This ought to be an incentive to every worker in the mine, and in every factory all over

the country, to persevere in the cause of education and well-doing; because education without a good life was really almost a curse to a man. (Hear, hear.) George Stephenson had multiplied the wealth of this globe more than a thousand fold, and he thought the best counsel he could give that day to everyone there was to use that wealth wisely and well so far as they had the using of it, so that it might confer a blessing on all who surrounded them. The greatest honour they could pay to the memory of George Stephenson was to encourage education among the rising generation. (Cheers.) They were aware that a college was to be erected to the memory of that man, and that scholarships were to be endowed. He believed there were to be three scholarships for the children of miners of the two Northern counties—three for the children of agricultural labourers, and four for the children of mechanics. Every man, however small his earnings, could, he ventured to say, afford sixpence or a shilling by way of contributing towards erecting the college and endowing these scholarships. He, therefore, urged every pitman to bring this matter before his fellow-workmen, wherever his occupation might be, and to urge upon every man to contribute funds to that object. Their schools—their Board schools—were very good in their way, but they wanted a higher class school, in order that men who could afford to keep their children a little longer at school might have the opportunity of doing honour to themselves and also adding wealth to their country; for they might depend upon it, the well-educated and the good man was not bringing wealth exclusively to himself. (Hear, hear.) If the miners of Durham and Northumberland, and the workers generally, did not contribute 6d. or 1s. per man, or as much as they could, to that grand object, it would be a shame and a disgrace to them. (Cheers.)

Mr. PATTERSON (Durham) moved the following resolution:—

That this meeting desires to record its sense of the obligations under which the industrial and working classes are laid by the discoveries and inventions of the late George Stephenson, and pledges itself to support by all means in its power the proposed scheme for the erection of a handsome building worthy to be dedicated to the memory of that great man, to be called the Stephenson College.

—He said no men ought to be more proud of George Stephenson than miners. He was one of themselves. He came from their

ranks; and there was no more fitting way of reverencing him than by contributing towards the foundation of a college to the memory of the gifted son of a miner. (Applause.)

Mr. NIXON (Northumberland), in seconding the motion, alluded to some of the salient points in the career of Stephenson, to whom, he said, they were indebted for the miner's safety lamp. (Hear, hear.) Whatever might be said with reference to Sir Humphry Davy as being the inventor of that lamp, it was a known fact that Stephenson's lamp was tried by himself, and by others, some time before Sir Humphry Davy gave his lecture upon the subject in Newcastle. (Hear, hear.) It was designed on a true principle, stood out as an exemplification of his ingenuity, and was quite equal to the progress of science in the present age. If not the best, it was one of the best lamps ever devised; because, when it was exposed to impure air or gas, it extinguished itself. This showed that Stephenson lived in advance of his time, and let them, as working men, show their pride in the noble son of a toiler who had sprung from themselves. (Cheers.)

The CHAIRMAN put the resolution, which was carried unanimously.

Mr. JOHN HOWIE (Chairman of the Northumberland and Durham Miners' Permanent Relief Fund), then proposed the second resolution as follows:—

That this meeting of the miners of Northumberland and Durham, taking part in the celebration of the one hundredth anniversary of George Stephenson's birth, takes this opportunity of publicly honouring the memory of the man whose genius produced the locomotive steam engine and the safety lamp—discoveries which revolutionised the mining system, and have proved of incalculable benefit to the miners.

He hoped, and believed, that from that day many who had come to that large meeting would endeavour to take to heart the lesson taught by George Stephenson and others who had tried to lift up humanity, and to raise the working classes. Let them be good and true to themselves, and they might depend upon it the education which they would have the opportunity of giving to their children would enable them to follow the example set by that great man. (Hear, hear.)

Mr. THOMAS GLASSEY (Bedlington Station), in seconding the resolution, said, so far as the miners in Northumberland and Durham were concerned, they would best further their own interests

and keep the memory of Stephenson, if they spontaneously and handsomely contributed towards the fund for the erection of the college, in order that future generations might receive its benefits and blessings. (Applause.)

The resolution was carried unanimously, and with three cheers.

Upon the motion of Mr. Patterson, seconded by Mr. Howie, and supported by Dr. Trotter, a vote of thanks was accorded, amid cheering, to Mr. Bryson for presiding, and the meeting dispersed.

NO. 3 PLATFORM.

GENERAL TRADES.

The men belonging to the general trades gathered round No. 3 Stand. Mr. J. C. Laird, the President of the Newcastle and Gateshead Trades Council, presided, and was accompanied on the platform by Mr. Miller, President of the South Shields Trades Council; Mr. Davy, President of the Amalgamated Society of Tailors; Mr. Hind, Vice-President of the Tailors' Society; Mr. Tweddle, Secretary of the Nut and Bolt Makers; Councillors W. Dickinson, W. Owen, W. Easten, G. I. Dean, J. G. Youll, W. Smith, T. P. Barkas, J. Milling, Messrs. J. H. Amos, Tweedy, G. Luckley, and Birkett.

The CHAIRMAN, in opening the proceedings, said they claimed George Stephenson, whether working in the mine, whether on the engine, or whether engaged on Chat Moss as an engineer, as above all things a working man. It behoved them, therefore, as working men, to do all that lay in their power to commemorate his name, in order that that might be handed down as a red letter day in the annals of Newcastle. (Cheers.)

Mr. MILLER, President of the South Shields Trades' Union, moved the first resolution, which was as follows:—

That this meeting heartily desires to share in the honour being done to the memory of George Stephenson by the public demonstration held this day to celebrate the centenary of his birth, and to offer its tribute to his genius, energy, and perseverance which achieved results so beneficial to his fellow-men.

—Through this island, he said, or any other land at which they chose to look, they saw the result of George Stephenson's labours. When they considered the energy which Stephenson put forth, and the manner in which his brain must have been taxed, and the

genius he had displayed, they could not fail to recognise that he was a man deserving of honour; and, looking at the mass of people there that day, he was sure that if any relative of Stephenson was there, he would feel that honour was really being done to him. (Applause.)

Mr. TWEDDLE, Secretary of the Nut and Bolt Makers' Society, seconded the resolution. He said George Stephenson had brought work to thousands of people in this country, and he had done more than any other man to contribute to the harmony of the whole human race. (Cheers.) If one thing more than another had given him pleasure it was to take part in celebrating the name of one who had done more for the people of Europe and the world than all the emperors, kings, and princes whose names stood prominent on the records of history. (Loud cheers.)

The resolution was carried unanimously.

Mr. DAVY, president of the Amalgamated Society of Tailors, moved the second resolution:—

That this meeting desires to record its sense of obligation under which the industrious and working classes are laid by the discoveries and inventions of the late George Stephenson, and pledges itself to support by all means in its power the proposed scheme for the erection of a handsome building, worthy to be dedicated to the memory of the great man, to be called the Stephenson College.

If any man had achieved greatness, the speaker said, it was George Stephenson. (Applause.) They all knew his history, his humble birthplace, his lack of knowledge in his early days, and the result of this genius, energy, and perseverance. Yet, they found in his old age that he never forgot the friends of his early youth and manhood. He possessed all those indomitable qualities for which Tyneside people were famous. He had been a benefactor to his race, and that demonstration was a fitting honour to his memory. (Loud applause.)

Mr. T. P. BARKAS seconded the resolution with very great pleasure for several reasons. The first was, that it was associated with the centenary of George Stephenson, and the second reason, that the design of the resolution was to perpetuate the memory of Stephenson by the erection of a building in connection with mechanical education. (Hear, hear.) In all ages of the history of the world there had been great and remarkable men. They could

not read the ancient history of Greece and Rome without seeing it. They could not look down the Middle Ages without observing, every here and there, in the gross darkness of the period that there were great men continually rising; and in recent times the number of great men had increased in a large proportion. Some of those who had spoken had done so as if Stephenson were the greatest man the world had seen. He was not sure that that was a correct statement; but, so far as mechanism and the progress of mechanical science were concerned, there was no man who had done so much for the world as Stephenson. (Loud applause.) Stephenson's genius and gift was very largely in the mechanical direction; and they must also bear in mind there were other and greater men in other departments, who stood upon a higher platform, that would go down to immortality more certainly than Stephenson himself. As Shakespeare and Bacon were great in their departments, so Stephenson was in his. (Applause.) In speaking to young men, he should say he did not think any person in this world had ever given Stephenson credit for great genius, unless it be genius of the kind that Carlyle speaks of. Carlyle said, "Genius is an infinite capacity for work." If that definition were correct, then Stephenson was a great genius, because from his earliest youth and his earliest manhood he was ever engaged in arduous labours, which had resulted in great success. (Applause.) Perseverance, industry, and sobriety lay at the base of his successful career. (Applause.) He urged working men to exercise these, and they would make an impression upon the world. Let them remember such names as Watt, Trevithick, Hackworth, and Hedley, all of whom preceded Stephenson, and, the great mechanical ideas that these men developed, suggested to Stephenson various ideas; by the use of which and his own inventions to the greatest possible extent, he had developed locomotion on the face of the earth to a degree that no man can pretend to, because there was no man on the earth who had done so much for the furtherance of locomotion as had George Stephenson. (Loud applause.)

The resolution was then put to the meeting, and carried by acclamation.

A vote of thanks to the Chairman, moved by Mr. DAVY, and

seconded by Mr. J. G. YOULL, was accorded, and the proceedings terminated.

EXHIBITION OF RELICS.

During the day, and in the evening, an exhibition of relics, associated with the name and life of George Stephenson, was held in the Wood Memorial Hall and the Literary and Philosophical Society. These objects attracted much interest, and were visited by large crowds of persons. The following is a list of the chief articles constituting the collection :—

Original of a letter from George Stephenson to C. J. Brandling, Esq., respecting his safety lamp (1816).—Contributed by Miss Brandling.

Various documents and originals of letters respecting the safety lamp (1816).—Sent by Miss Loraine, 21, Ellison Place, Newcastle.

Shot bag and powder flask, formerly belonging to George Stephenson.—Owner, Mr. Thomas Paisley, 39, De Grey Street.

Scarf presented by George Stephenson to Thomas Burn, father of the lender.—Mr. T. J. Burn, Wharnccliffe Street, Newcastle.

Walking Stick made by George Stephenson for the father of the present owner.—Mr. T. Pattison, 40, Elswick Row, Newcastle.

Chair, about 200 years old, formerly the property of George Stephenson's grandfather.—Sent by Miss Polam, Newton Street, Newcastle.

Bonnet worn by George Stephenson's grandmother.—Sent by Miss Bolam.

China plate and sauce jug, formerly the property of George Stephenson's grandmother.—Miss Bolam.

View of the viaduct of Newton-le-Willows, on the Liverpool and Manchester Railway.—Mr. T. Prosser.

Plan and section of an intended railway or tramroad from Liverpool to Manchester. Surveyed and signed by George Stephenson and Thomas O. Blackett, November 20th, 1824.—Mr. J. A. Haswell.

Views of Sunderland Bridge before and after the alterations by Robert Stephenson.—Mr. Thomas Prosser.

Indenture of apprenticeship by John Hedley, of Houghton-le-Spring, to George Stephenson, as a millwright.

Gold watch presented by George Stephenson to Miss Julia Lambert.—Mr. Thos. D. Ridley, Coatham Place, Newcastle.

Articles formerly the property of George Stephenson :—Weather glass, 21 dinner plates, 3 razors in a case, a small (model) engine and boiler, a still with lamp and chimney, a horn, and a medal showing respectively on the obverse and reverse Robert Stephenson and the Britannia Bridge.—Messrs. John Spencer and Sons.

Two jugs received by the owner, Margaret Liddell, daughter of Ellen Liddell, sister to George Stephenson's mother.—Mrs. Carr, 89, Stothard Street, Newcastle.

Model of the house where George Stephenson was born.—Mr. Wm. Harrison, Kenton.

Model of George Stephenson's residence at Willington Quay, where Robert Stephenson was born, now the site of the Stephenson Memorial Schools.—Mr. Turnbull, head master of the Stephenson Memorial Schools.

The Stephenson, Clanny, and Davy safety lamps.—Messrs. John Mills and Sons. Stephenson lamp—a relic of the Oaks Colliery explosion.—Messrs. John Mills and Sons.

Original "Geordie" lamp exhibited at the lecture delivered by George Stephenson in connection with the Literary and Philosophical Society, December 5th, 1815.

Original of letter written by George Stephenson to Mr. John Buddle, Wallsend, returning thanks for the safety lamp testimonial, 7th April, 1816.—Mr. J. B. Simpson, Newcastle.

Old clock, said to have been kept in repair by George Stephenson at a yearly stipend of 3s.—Mr. D. P. Morrison, Newcastle.

Silver tankard, presented to George Stephenson with a portion of the testimonial of £1,000, which he received for having invented the safety lamp.

EXHIBITION OF MODELS.

The exhibition of model locomotive and other engines, given in the rooms of the Literary and Philosophical Society, was likewise a source of great interest. The following is a list of the models that were on view:—

1.—Murdock's Engine (1784). The first ever made in England to travel on its own wheels. It is the property of William M. Murdock, Leeds, grandson of the inventor.

2.—Trevithick's Engine (1804). Made a successful experimental trip on the Merthyr Tydvil Railway, and was the first engine which ran on any railway.

3.—Locomotive Engine (Blenkinsopp, 1811). The engines of which this is a model worked with a toothed wheel on a rack rail, and ran between Middleton collieries and the town of Leeds. They were the first commercially successful engines used on any railway.—Sent by Thomas A. Embleton, Methley, Leeds.

4.—Stephenson's "Locomotion" (No. 1, 1825).—Edward Fletcher, Gateshead.

5.—Stephenson's "Rocket" (1829). The engine of which this is the model was the successful one at the trials on the Manchester and Liverpool Railway, October 14, 1829. A premium of £500 was awarded to George Stephenson as the successful competitor.—G. R. Stephenson.

6.—Locomotive engine "Invicta." The engine of which this is the model was built by Stephenson immediately after the "Rocket," and opened the Canterbury and Whitstable Railway.—Edward Fletcher, Gateshead.

7.—Express Passenger Engine, with inside cylinders, four driving wheels coupled. This is an exceedingly well-finished model in the minutest detail, and shows great skill on the part of the maker.—J. Taylor, Darlington.

8.—Passenger Locomotive Engine, four wheels coupled, inside cylinders. This model took three years of the leisure time of the maker, and was finished in 1851.—Thomas James, Hartlepool.

9.—Locomotive engine, with vertical cylinders. Represented to be a model of the "Royal George," made by David Johnston whilst serving his apprenticeship with George Stephenson, about 1830.—Wm. Johnston.

10.—Locomotive Passenger Engine on six wheels, four wheels coupled, made by John Fawcett, engineman, New Delaval.

11.—Locomotive Express Passenger Engine, single driving wheels, 6 ft. 6 in. diameter, inside cylinders, 16 in. diameter, and 24 in. stroke. This is a highly-finished model, and the maker worked at it during his leisure hours for ten years.—Made and exhibited by W. Kirton, boilermaster, Great Northern Railway, Doncaster.

12.—Tank Locomotive Engine. This is a well-finished model and of a novel construction. It has radial axles, and will run for any length of time round a circular railway of two feet radius.—Made by T. Hudson, Darlington.

13.—Brunton's Locomotive Horse Leg Motion, popularly called the "Iron Horse." It worked, or rather was tried on the Earl of Durham's railway, on the 31st day of July, 1815, but the boiler exploded. The engineman was blown to pieces, and another man was cut in two by the fragments of the boiler. A little boy, at the same time, was thrown a great distance and killed. About fifty others were most severely scalded and wounded, and some of them died. It is more than probable that this was the first locomotive boiler explosion that had occurred.—Made by T. Hudson, Darlington.

14.—Locomotive Branch Passenger Engine. This is a model of the bogie tank engine, used for working nearly all the branch trains in this district.—George Goldsborough, Sunderland.

15.—Long-boiler Locomotive Engine. Stephenson secured letters-patent for this type of engine. All the wheels are under the boiler, and the first with direct action and slide valve motion.—George R. Stephenson.

16.—Locomotive Engine.—George Goldsborough, Sunderland.

17.—A pair of Compound Marine Engines. This model exhibits exquisite skill in minuteness of detail and accuracy of workmanship.—John Raig.

18.—Stationary Vertical Engine, highly finished. The tracery of this model is of a superior description.—J. Dixon, Darlington.

19.—Horizontal Engine with two cylinders and all the working parts well finished.—R. Couless, Darlington.

20.—Horizontal Engine with all the cylinders, &c., well finished. The maker of this model states that he made it as a source of amusement in the evenings a number of years ago.—Wm. Williamson, fitter, Leeds.

21.—Stationary Engine with single cylinder, made during the apprenticeship of the maker, and finished when he was eighteen years of age.—Thomas James, Hartlepool.

22.—Horizontal Engine, with double cylinders, designed and executed by the maker.—Wm. James, Hartlepool.

23.—Horizontal Engine, double cylinders; Vertical Engine.—J. Middleton, gas-fitter, Hull.

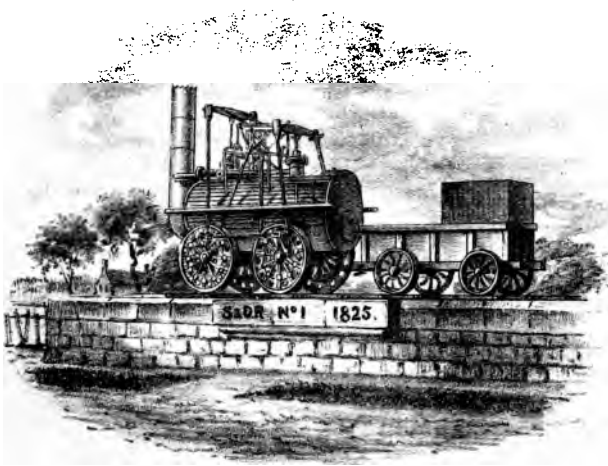
24.—Beam Pumping Engine, parallel motion, plug rod and tapped motion for working the steam valves. The original engine was made for the Hull Corporation Water Works by Messrs. Hawks, Crawshay, and Sons, Gateshead.—Luke Stoneferry, Hull.

25.—Stationary Engine, with oscillating cylinders, and was used to propel a small boat.—J. Bonner, Hull.

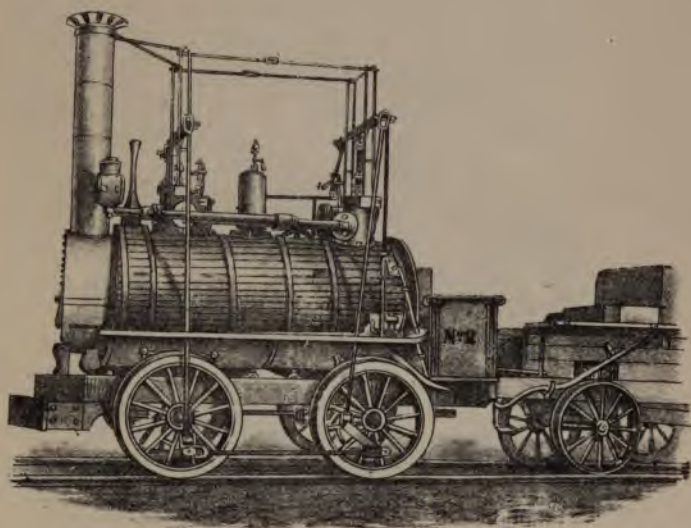
The following is a list of the drawings illustrative of the earliest locomotives used in America, which were exhibited on the walls:—

1. The "Lion," the first engine placed upon rails in the western hemisphere, in the year 1829. It somewhat resembles, in construction, the old Puffing Billy at Wylam Colliery. It was made by Foster, Rastrick, and Co., of Stourbridge, England, for the Delaware and Hudson Canal Company, to connect their coal mines with the canal quay whence the coals were shipped. It was calculated to draw 60 to 80 tons at five miles an hour.

2. The "Spitfire," made by Bury, Curtis, and Kennedy, of Liverpool. The date of this is uncertain, but was probably about 1830, and it is claimed by some Americans to have been the first that was imported into that country. It was a four-wheeled locomotive of the old type, well known to engineers as the build of that Liverpool firm. It is now preserved as a relic in a railway works yard at Scranton, in Pennsylvania.



**FIRST ENGINE CONSTRUCTED FOR THE STOCKTON AND
DARLINGTON RAILWAY, IN 1825, AND NOW AT
NORTH ROAD STATION, DARLINGTON.**



THE KILLINGWORTH ENGINE.

3. The "John Bull." Great interest attaches to this engine, as it was built by Stephenson, at Newcastle, in 1831, for the Mohawk and Hudson Railroad Company. It was actually worked until 1866. It had a 9 in. cylinder, with a 20 in. stroke; four wheels, 4 ft. diameter, of which the spokes and rim were wood, the hub of cast iron, and tires of wrought iron. This engine was shown in the Centennial Exhibition at Philadelphia, in 1876, and worked its way under steam from New York to Philadelphia, 88 miles, drawing several cars after it. It is, in appearance, quite different from Stephenson's earliest engines for this country, and much more like a modern type. It weighed about 10 tons, and would pull 50 tons dead weight at a speed of 12 to 15 miles per hour. This is a copy from the drawing that was sent out to America with the engine.

4. The first locomotive built in America, the "Best Friend," a spirited sketch of this, accurately copied from a print of the period, on its trial trip on the South Carolina Railroad. November 2nd, 1830. The boiler exploded June 17th, 1831.

5. Sketch of the trial trip of the "De Witt Clinton," the third American-built locomotive (the first ever run in the State of New York), August 9th, 1831, on the Mohawk and Hudson Railroad.

Close to the above was a sheet giving a few salient facts as to the progress of railways on the American continent. In 1830, there were 23 miles of railroad in the United States. In 1881, from official returns, there are over 86,497 miles, and 8,000 locomotives. In 1876 there were about 180,000 persons employed on American railways, and up to that time 4,000 patents had been granted for inventions connected therewith. The total miles run by trains in the United States in 1876 were 311,507,000, and the number of passengers carried 163,079,000. The number of persons killed by railway accidents in the year 1875 in the United States was 2,300. In England, in the same year, 1,280 were killed, and 5,755 were injured. Mr. West, of Darlington, prepared the above drawings for this centenary, having procured the originals when travelling in America recently.

Mr. JOHN A. HASWELL, of the North Eastern Railway, was present during the greater part of the day, and described the histories and peculiarities of the more notable of the models to the crowds who visited the building.

OLD AND MODERN LOCOMOTIVES.

As being available to classes, one of the most popular features at the Centenary was an exhibition of engines, in which the earliest type of the locomotive could be compared with the best modern productions of the engine shops. The North Eastern Company's officials acted with great energy in this portion of the proceedings,

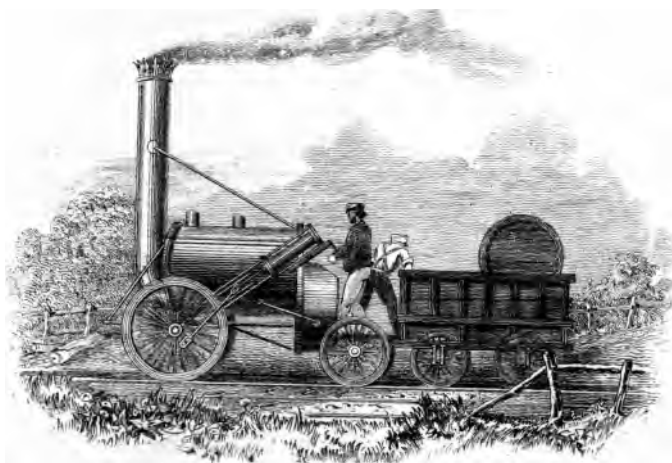
and by their influence, and the facilities they afforded, a gathering of locomotives was secured, which, in its own particular line, has had no parallel. The old engines submitted for inspection numbered five only, namely, the famous No. 1 (from Darlington), the *Invicta*, the old *Billy* (from West Moor), an engine from the Hetton Coal Company's Works, and one built by Alfred Kitching, of Darlington, in 1839. The plan of the exhibition of modern engines was that the nine leading lines of the country should each send a passenger express and a goods express locomotive to represent them, but this plan was finally altered and amplified. The whole of the engines arrived on the 8th of June, and they mustered together in the enormous Gateshead engine shed, the largest in England. Thence the working engines were taken early on the Centenary morning, and made the journey to Wylam and back, being then shunted on to the Infirmary sidings, where the old ones had already been placed, and where the exhibition was held.

THE "ROCKET."

LECTURE BY MR. J. A. HASWELL.

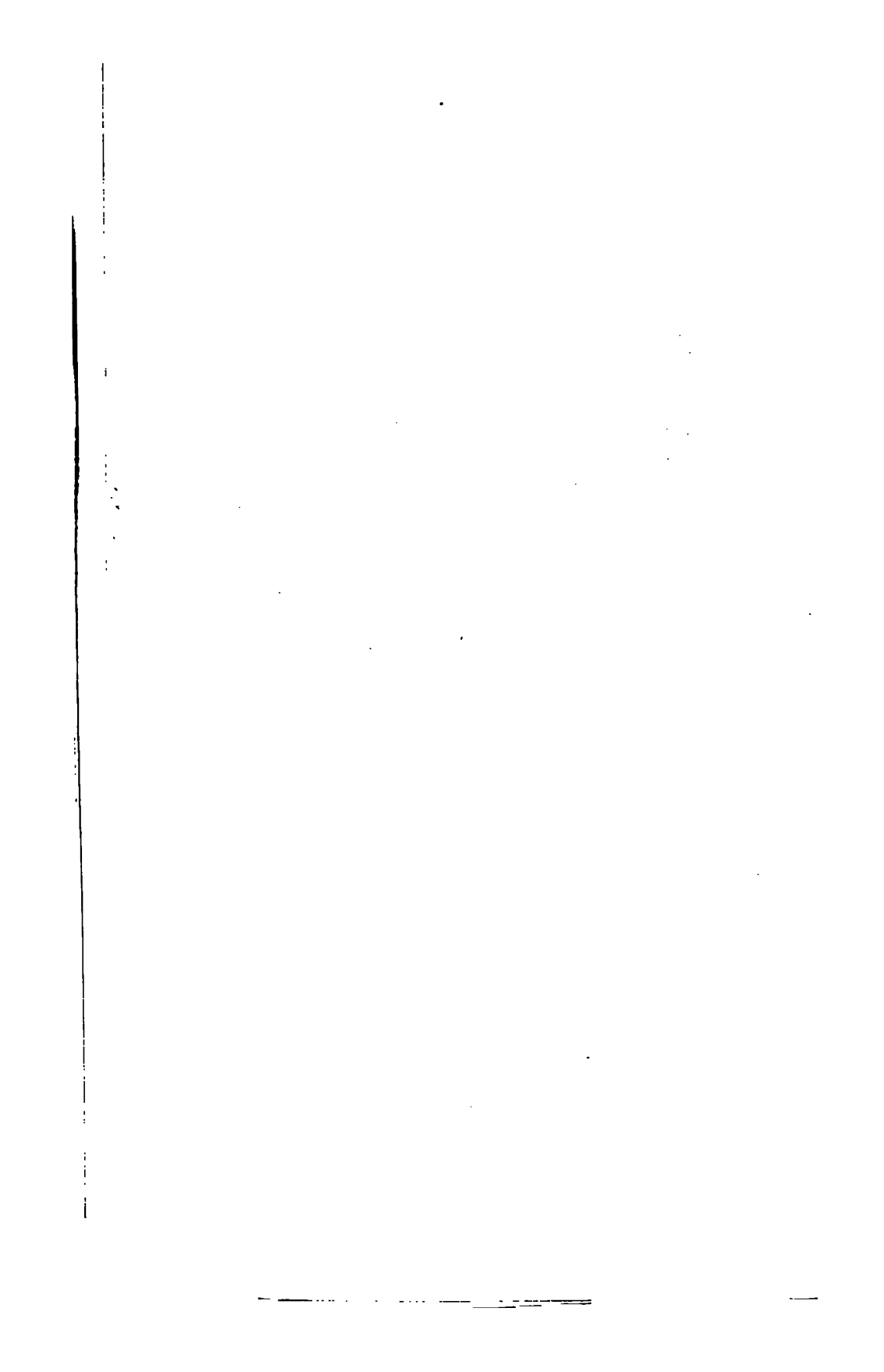
In the theatre of the Literary and Philosophical Society, at night, Mr. J. A. Haswell, M.I.M.E., delivered a lecture on "Stephenson's 'Rocket,' the most remarkable engine ever constructed," to a large and appreciative audience. Dr. Embleton occupied the chair.

Mr. HASWELL carefully traced the history of the locomotive from the earliest period of its use, in the course of which he mentioned Stephenson's first engine—popularly called "*The Blucher*"—placed at Killingworth Colliery railway in June, 1814, and which was the most successful engine that had been constructed up to that time. At the close of 1822, there were five Stephenson locomotives at work on the Hetton Coal Company's railway hauling coals to the shipping staiths. Stephenson supplied the first engine—"The Locomotion"—to the Stockton and Darlington Railway in September, 1825, and about the same time a companion engine, "*The Hope*," was built and run on the same line. In 1829, the directors of the Manchester and Liverpool Railway,



THE ROCKET ENGINE.

NOW AT SOUTH KENSINGTON MUSEUM.



which railway was then about completed, offered a premium of £500 for the best locomotive engine, conformable to certain conditions, one of which was that the weight should be less than that of the existing engines, and another being in reference to its power. In response to this Stephenson entered "The Rocket," which took the prize. "The Rocket" had no sort of claim to be regarded as the first locomotive, as some people believed, but it was the first engine which combined in itself all the essential features of the modern locomotive. In many respects it was a totally different engine from anything worked previously by the Stockton and Darlington and other railways. It had a tubular boiler and a fire-box, which bore some resemblance to the modern fire-box. It had a single pair of driving wheels, and was mounted on springs; and it was probable that during the trials it ran faster than any locomotive had ever done before, attaining as it did a speed of a little over 29 miles per hour. The proofs this supplied of the power to attain speed scarcely dreamed of before revolutionised the whole aspect of the transit question, and suggested possibilities of a most astounding character. It was because of the enormous influence exerted by "The Rocket's" performances on the future of the railway system that they assigned it a place as the most remarkable steam engine ever constructed. The *Engineer* states, "It is a most unfortunate circumstance that concerning the construction of this engine very little is known. The popular faith is not only that everything concerning the engine has been put upon record, but that it still exists itself at South Kensington to tell its own story. There can be no greater mistake as regards the history of this engine. There is some reason to think that not long after the Liverpool and Manchester Railway opened, the engine underwent several modifications. That the engine has almost been rebuilt is certain." There could be no doubt but that portions of the original machine were contained in the South Kensington "Rocket," but how much no one knew. After it left the railway it was employed by Lord Dundonald in experimenting with his rotary engine to supply steam. Subsequently, it seemed it was used to propel a steamboat, and we next heard of it driving some small machinery in a shop at Manchester. Afterwards a contractor bought it, and eventually it

was purchased—what was left of it—as a curiosity by Mr. Thompson, of Kirkhouse Colliery, near Carlisle, who sent it to Messrs. Stephenson's Works to be taken care of. The latter part of this statement, which had been taken from the *Engineer*, was not exactly consistent with a statement by one of the Messrs. Thompson, who, in answer to an inquiry, wrote:—"Referring to your letter of the 21st ult. to our firm respecting the Rocket, I beg to say that my father bought her from Mr. Booth in March, 1839, for £300, and she worked the coal traffic on our branch line for about three years. . . . Being desirous that she should be exhibited in London at the exhibition in 1851, we sent her to Messrs. R. Stephenson and Co., Newcastle, to be overhauled on the 3rd February, 1851. For some reason or other she was never forwarded, but stood in the South Street Works until 1862, when we presented it to the Kensington Museum, where she was in September of that year, and still remains." Having referred to the part of the engine which contributed most towards its success, viz., the tubes, he said that since the success of "The Rocket" on the Manchester and Liverpool Railway, railways and locomotive engines had rapidly increased throughout the civilised world; but practically the locomotive engine is the same in principle as it was when it left the hands of the Stephensons.

The lecture was illustrated by means of working models, and was listened to with great interest and attention throughout. At the close, the chairman called upon the audience to give Mr. Haswell a hearty vote of thanks for his interesting, able, and instructive lecture. The motion was carried with loud acclamations, and the meeting terminated. The lecture room was illuminated by means of Mr. Swan's electric light.

BANQUET IN THE ASSEMBLY ROOMS.

At half-past five o'clock in the evening, a grand banquet was held in the Assembly Rooms, which were tastefully decorated for the occasion. Covers were laid for about 270 gentlemen, and the *menu*, which was of a very rich and varied description, was supplied by Mr. Lauderdale, of the Alexandra Hotel. The chair

was occupied by the Mayor of Newcastle (Ald. Angus), who wore his gold chain of office. On the right of his worship were Mr. George Robert Stephenson and the representatives of the King of the Belgians, M. J. Van der Sweep, M. Leon Bika, and M. Henri Goudry. Further to the right of the Mayor were Mr. Charles Mark Palmer, M.P., and Mr. Isaac Lowthian Bell, F.R.S. Immediately on the left of the Mayor was seated Sir Matthew White Ridley, Bart., M.P., next to whom were Admiral Ting and Captain Lin Tai Tsan, of the Chinese Imperial Navy, who at the time were on a visit to the Tyne in connexion with the war vessels built here for the Celestial Government. Still further to the Chairman's left were Sir George Elliot, Bart., and Mr. Joseph Cowen, M.P.; Mr. J. C. Stevenson, M.P.; and Alderman C. F. Hamond. At the second cross table were the Mayor of Berwick-on-Tweed; the Mayor of South Shields; the Mayor of Carlisle; the Mayor of Barrow-in-Furness; the Mayor of Jarrow; the Mayor of Gateshead; Mr. John Rogerson; Lieut.-Colonel Potter, C.B.; the Vicar of Newcastle; the Rev. H. Batchelor; Mr. Alderman Stephenson; Mr. Alderman J. O. Scott; Mr. Theodore Borries, Danish Consul; Mr. George Reid, Belgian Consul; Mr. T. E. Harrison, of the North-Eastern Railway; the Mayor of Tyne-mouth; the Mayor of Durham; the Mayor of Darlington; the Mayor of Sunderland; and the Mayor of Hartlepool. The Sheriff (Mr. Thomas Richardson) officiated as vice-chairman; and among the other gentlemen by whom invitations had been accepted were:—

Mr. C. F. Jackson; Ald. Thomas Wilson; Mr. Wm. Stewart; Mr. R. Urwin; Dr. H. W. Newton; Mr. L. W. Adamson; Mr. Lindsay Wood; Mr. U. A. Ritson; Mr. W. A. Potter; Mr. W. H. Budden; Ald. Potter; Rev. W. Hirst; Ald. Milvain; Mr. Stephen Quin; Mr. Pauling, N.E.R., York; Mr. E. S. Smith; Mr. R. W. Hodgson; Mr. M. W. Hensell; the Master of the Trinity House; Mr. Edward Stout; Mr. W. B. Wright, Lancashire and Yorkshire Railway; Mr. J. B. Dale; Mr. W. W. Pattinson; Mr. T. B. Sanderson; Mr. Matthew Cay; Dr. J. C. Bruce; Mr. John Cutter; Ald. Newall; Mr. Christison, N.E.R.; Mr. B. C. Browne, J.P.; Mr. F. B. Dupré; Mr. John Carr; Mr. Thomas Nelson; Rev. J. M. Stephens; Mr. D. Drummond, N.B.R.; Mr. Edwards, s.s. *Lawe*; Mr. Shotton, Tynemouth; Mr. Kitson, Leeds; Mr. W. Dickinson; Mr. H. Tennant, N.E.R.; Mr. Alfred Harrison, N.E.R.; Mr. E. Fletcher, N.E.R.; Capt. Noble; the Under-Sheriff of Newcastle; Mr. Douglas, Riding Mill; Mr. Bell, North Shields; Mr. Stephenson, Jesmond Road; Mr. Jeans, Secretary Iron and Steel Institute; Mr. W. Smith, Wentworth Place; Mr. Jacob Wilson, late of Woodhorn; Mr. Robert Stephenson, Jesmond Road; Mr. John Milling; Mr. George Graham, N.E.R., Darlington; Mr. J. Cartmell Ridley; Mr. George I. Dean; Mr. W. Boyd, Jesmond Road; Ald. Joseph Green; Mr. Hartley, Sunderland; Mr. W. Stroudley, Locomotive Superintendent London,

Brighton, and South Coast Railway; Mr. W. Wilson; Mr. F. W. Webb, London and North Western Railway; Mr. Henry Scholefield; Mr. H. T. Murton; Mr. R. H. Holmes; Mr. W. D. Stephens; Mr. W. Temple; Mr. T. Bowden; Mr. Stirling, Great Northern Railway, Doncaster; Mr. Greenwell, President of the Institute of Mining and Mechanical Engineers; Mr. Edward Culley; Mr. Wm. Owen; the Secretary of the Trinity House; the Town Clerk of Tynemouth; Mr. Henry Clapham; Mr. Ralph Cook; Mr. Thomas Green; Mr. Steadman Aldis; Mr. Joseph Cowen, jun.; Mr. W. A. Furness; Mr. Theo. Wood Bunning; Mr. Godfrey Smith, North-Eastern Railway; Mr. Matthew Hepworth; Mr. John H. Amos; Mr. James Newton; the Town Clerk of Gateshead; the Town Clerk of South Shields; Mr. J. J. Pace; Mr. G. Greenwell, Durham; Mr. W. Sutton; Mr. G. B. Forster, Backworth; Mr. R. C. Clapham; Mr. David Dale, Darlington; Ald. Forster; Rev. Rowland East; Mr. J. A. Haswell, North-Eastern Railway, Gateshead; Mr. John Kitching, Darlington; Mr. Robert Smith, Huelva Lodge, Sheffield; Mr. J. Radford, Jesmond Road; Mr. B. McNulty; Mr. Wm. Easten; Mr. J. G. Youll; Mr. Hugh Dunn, Town Clerk of Darlington; Mr. Thomas Stephenson; Mr. Henry Stephenson; Mr. R. Johnson, Jesmond; the Town Clerk of Jarrow; Mr. J. Dobson; Mr. W. D. Cruddas; Mr. Hill Motum, Town Clerk; Mr. S. Rowell; Mr. T. Prosser; Mr. J. Bryson; Mr. W. Crawford; Mr. John Barnett; Mr. J. C. Laird; Mr. T. Sample; Mr. Ald. Thos. Hedley; Mr. Jas. Sterling, S.E.R., Ashford; Ald. Cail; Mr. P. J. Messent; Major E. Downing; Col. Joicey, M.P.; Mr. T. B. Winter; Mr. Samuel Culley; Mr. P. J. Knight, L. B. and So. C. Railway.

The various Mayors present were clad in their chains of office. The other gentlemen to whom invitations had been issued, but who were not present, included the Bishop of Durham, the Duke of Northumberland, Earl Grey, Earl Percy, the Earl of Ravensworth, Mr. Ashton Dilke, M.P., Lieut.-Gen. Roberts, Mr. J. Russell Lowell, the Earl of Durham, the Marquis of Londonderry, Dr. Smiles (biographer of Stephenson), Mr. W. Digby Seymour, and others. An excellent band, under the direction of Mr. J. H. Amers, occupied the orchestra, and played a selection of music during the dinner. The proceedings of the evening were very much facilitated by the presence of a toastmaster, Mr. John Dale, sword-bearer to the Lord Mayor of York, who was stationed to the right of the Mayor. Grace before meat was said by the Vicar of Newcastle (Canon Martin), and thanks after meat were returned by the Rev. H. Batchelor.

The MAYOR, in rising to propose the first toast, was greeted with loud cheers. He said they had lived for 44 years under the beneficent reign of Her Majesty. (Cheers.) During that time this nation had made marvellous progress, both morally, scientifically, and commercially. (Cheers.) Might she long be spared to sway the sceptre over a happy and contented people! (Cheers.) He gave them the toast of "Her Majesty the Queen." (Cheers.)

The MAYOR next proposed "The Prince of Wales and the rest of the Royal Family." He said the example of the parents had not been lost upon their descendants. The members of the Royal family were ever ready to contribute by their example and influence to any object whatever, which was calculated to contribute to the benefit and happiness of the people. (Hear, hear, and cheers.)

The MAYOR, again rising, said: Gentlemen, the next toast that I have to propose for your acceptance is one that I am sure will be very heartily responded to. The times in which we live are times of stirring activity in the Church and in the world. (Applause.) We see it in the untiring zeal and energy of the talented Bishop of the diocese. (Hear, hear.) We see it in the consecrated gifts and in the self-denying efforts of the clergy of all denominations. They are ever ready to promote whatever is calculated to advance the best interests of mankind, and extend the knowledge of that Christianity which alone exalteth a nation. (Applause.) I have the pleasure to propose—"The Bishop of the Diocese, and the Clergy of the other Denominations."

The VICAR OF NEWCASTLE, in rising to respond, was received with applause. He said: Mr. Mayor and gentlemen, the occasion on which we are met is one that calls for some notice of the great and glorious man whose name will long live in the memory of Englishman. (Cheers.) That reminds me of another great name, and I will carry you back to a period four centuries ago, when, through the industry of a man called Caxton, we were first brought into connexion with the marvellous powers of the printing trade. Now that discovery demanded, as a consequence, that the clergy, who taught the people, should be educated, and, above all things, educated in that great Book to which we all appeal. To-day, the discovery of the means of locomotion from one place to another, and the drafting of large portions of the population of these islands into our large towns, and more especially our great metropolis, is before us. The collection of vast masses of human beings in our large towns and cities necessitates having a labourious, as well as a literary and well-informed clergy. (Hear, hear.) So far as we are connected with the Church of this land, we endeavour as much as possible to be active, and to be zealous in the discharge of our

duties. We, however, require the laymen who are engaged in commercial pursuits and in forwarding the material prosperity of the land to aid by their example and by pecuniary means, in order that we may make suitable arrangements at the present time to meet the spiritual wants of the masses of the people. We thank you for your past support, and we are always glad to be welcomed amongst you; and, in the name of the Bishop and Clergy of all denominations, I return you hearty thanks for the way in which you have received the toast. (Applause.)

The Rev. H. BATCHELOR (Congregationalist) next responded, saying he felt that the occasion on which they were met together rendered the toast all the more gratifying because it presumed that clergymen kept themselves abreast of the thought of their age; that they were not unmindful of the scientific progress by which they were surrounded; that they took a profound interest in the genius of all their fellow-countrymen; and that they were watchful observers of the productive industries of their native land.

The Rev. Dr. BRUCE, with whose name the toast was also associated, said: Mr. Mayor and gentlemen, perhaps I am one of very few in this company who had the honour of visiting George Stephenson and taking tea with him in his cottage at Killingworth. (Loud cheers.) I was a very young man, and my father took me out on one occasion when he was visiting him, and on that occasion we were shown the locomotive in its cradle. (Hear, hear.) What a vast number of valuable inventions have been made within the lifetime of a single individual, which are affecting, and will still further affect, the destinies of the whole world! (Hear, hear.) I have been down the river to-day, and it called to mind, when I saw the vast steamships there, the time—not long ago—when I looked upon the building of the first steamship that ever plied upon the waters of the Tyne. I remember seeing the first screw-steamer approach our port. I also remember the late Mr. Thomas Sopwith explaining in his genial style—(cheers)—the application of the magnetic needle to the communication of knowledge to distant places. (Hear, hear.) Now what a rush of things has come upon us even in this short space of time, that is revolutionising the whole world! A vast variety of inventions has accumulated round

this great one that we are met to-day to commemorate, and all these have revolutionised the world. I cannot help comparing George Stephenson, of these comparatively modern times, with another great man, who lived in ancient times—no less a man than Alexander the Great. (Hear, hear.) He brought, by the force of his sword, the whole of the world into fellowship, uniting the Eastern Empire with the West, and carrying the Greek language over the whole earth, preparing the way for the great gospel era. Now we see the same thing going on in a peaceable manner. The world is brought into unison chiefly through the locomotive and kindred inventions and applications of science. (Cheers.) However vast the rush of events may be—what great events some of us who are sitting round this table may see; struggles may occur, and battles may have to be fought, but great is truth, and it will prevail. (Cheers.)

The SHERIFF said the pages of our national history were enriched with the achievements of our gallant army, and its heroic deeds always inspired the breasts of every patriot with feelings of gratitude and admiration. So far as our navy was concerned, we had equal reason to be proud of it; and looking at our great colonial empire, and at our great mercantile marine, it must be patent to everybody that the efficiency of our fleet must be maintained. He had to propose to them the "Army, Navy, and Volunteer Forces," coupled with the name of Lieutenant-Colonel Potter, C.B. (Loud cheers.)

Lieut.-Col. POTTER, who on rising to respond was received with cheers, returned his thanks on behalf of the Reserve Forces, and more especially that section to which he had the honour to belong. (Cheers.) They were a peaceful force—they were raised for the purpose of preserving peace in the country. For twenty-two years they had existed with the hope of preserving the country from any danger or panic of invasion. They had during that time had many difficulties to contend with, but they had surmounted them, without calling upon any outside help—(hear);—and they were acknowledged to have at least claims to be considered as a part of the defenders of this country. They were assured by some timid people that the strength of the army and navy was not such that

our country is any longer safe from hostile invasion. But our navy had advanced so rapidly that in a very short period of time so large a body of defenders could be concentrated upon any point before any hostile force could be landed on the shores of our country. The people who had raised this craze had forgotten one thing, and that was, that through the invention of George Stephenson we were surrounded by such a network of railways that, with the aid of the telegraph, a large body of troops could be gathered in a very short time at any given point, long before a hostile force could be landed. He hoped the time would never arrive—at least within his personal knowledge—when they should be called in any other way than as a peaceful body. He hoped such a period would never arrive in his time. (Laughter.) At the same time, let him assure them that our countrymen were quite safe with such defenders as our army and navy, who had added fresh laurels to our country. (Cheers.)

The MAYOR, at this stage, said he had just received a telegram from Lord Edward Cavendish, M.P., the chairman of a banquet at Chesterfield, stating that 30,000 people at that place had met to do honour to George Stephenson, and requesting a reply. The telegram was :—

We join hands with you, and wish you all success. Please reply at once.

To this he replied at once by telegram :—

We reciprocate the feeling expressed by you, and at Newcastle to-day at least 200,000 people have assembled for the same purpose.

(Loud cheers.)

Sir WM. G. ARMSTRONG, C.B., who was received with loud cheers, said :—Mr. Mayor and Gentlemen, the memory of a great man now dead is a solemn subject for a toast, and I approach the task of proposing it with a full sense of its gravity. We are met to celebrate the birth of George Stephenson, which took place just 100 years ago—a date which nearly coincides with that at which the genius of Watt first gave practical importance to the steam engine. Up to that time the inventive faculties of man had lain almost dormant, but with the advent of the steam engine there commenced that splendid series of discoveries and inventions which have since, to use the words of Dr. Bruce, revolutionised the state of the world. Amongst these the most momentous in its con-

sequences to the human race is the railway system—(cheers);—and with that system, including the locomotive engine as its essential element, the name of George Stephenson will ever be pre-eminently associated. In saying this, I do not mean to ignore the important parts played by others in the development of the railway system; but it is not my duty on this occasion to review the history of that system and to assign to each person concerned his proper share of the general credit. To do this would be an invidious task, and out of place at a festival held in honour of George Stephenson only. I shall, therefore, pass over all names but his, not even making an exception in favour of his distinguished son. (Cheers.) It seldom or never happens that any great invention can be exclusively attributed to any one man; but it is generally the case that amongst those who contribute to the ultimate success there is one conspicuous figure that towers above all the rest, and such is the figure which George Stephenson presents in relation to the railway system. (Cheers.) To be sensible of the benefits we have derived from railways and locomotives, let us consider for a moment what would be our position if they were taken from us. The present business of the country could not be carried on; the present population could not be maintained; property would sink to less than half its value—(hear, hear);—and instead of prosperity and progress, we should have collapse and retrogression on all sides. (Cheers.) What would Newcastle be if it ceased to be a focus of railways? How would London be supplied if it had to fall back upon turnpike roads and horse traffic? In short, England as it is could not exist without railways and locomotives; and it is only our familiarity with them that blunts our sense of their prodigious importance. As to the future effects of railway, it is easy to see that they are destined to diffuse industrial populations over those vast unoccupied areas of the globe that abound in natural resources, and only wait for facilities of access and transport to become available for the wants of man. There is yet scope for an enormous extension of railways all over the world, and the fame of Stephenson will continue to grow as railways continue to spread. (Loud cheers.) But I should do scant justice to the memory of George Stephenson if I dwelt only on the results of his achievements.

Many a great reputation has been marred by faults of character, but this was not the case with George Stephenson. His manly simplicity and frankness, and his kindly nature won for him the respect and esteem of all who knew him both in the earlier and later periods of his career—(cheers);—but the prominent feature in his character was his indomitable perseverance, which broke down all obstacles, and converted even his failures and disappointments into stepping stones to success. It was not the desire of wealth that actuated him in the pursuit of his objects, but it was a noble enthusiasm, far more conducive to great ends than the hope of gain, that carried him forward to his goal. Unselfish enthusiasm such as his always gives a tone of heroism to a character, and heroism, above all things, commands the homage of mankind. Newcastle may well be proud of its connexion with George Stephenson, and the proceedings of this day testify how much his memory is cherished in this his native district. Any memorial dedicated to him would be appropriate to this occasion, and if such memorial were connected with scientific instruction it would be in harmony with his well-known appreciation of the value of scientific education, and of the sacrifices he made to give his son the advantage of such an education. (Cheers.) I now, gentleman, have to propose to you the toast which has been committed to me, and which is "Honour to the memory of George Stephenson, and may the college to be erected to his memory prove worthy of his fame." I must ask you to drink this toast standing; and, considering that the birth of Stephenson is a subject of jubilation, I think that, although he is dead, we may drink that toast with hearty cheering. (Hear, hear, and loud cheers.)

MR. GEORGE ROBERT STEPHENSON, who was warmly cheered on rising to respond to the toast, said: Mr. Mayor and Gentlemen, let me, in the first place, thank Sir William Armstrong for the many kind words he has uttered in honour of the memory of George Stephenson. It is true that he was, as Sir William said, one of the most kind-hearted and unselfish men that ever lived; but I suppose that no man has had a more up-hill struggle during the present century. (Cheers.) I have now in my possession documents that would show the extraordinary and peculiar nature

of the opposition that was brought against him as a poor man in his early life. He was opposed by many of the leading engineers of the day; some of these men using language which, it is not incorrect to say, was not only injurious but wicked. This is *not* the proper occasion to weary you with a long speech, but with the view of showing the peculiar style of engineers in reporting against each other, I would very much wish, with your permission, to read a few sentences from documents that I have in my possession, dating back to 1823. (Hear, hear.) This, gentlemen, will clearly show the sort of opposition I have alluded to. It occurs at the end of a report by an opponent upon some projected work on which he and his brothers were engaged:—"But we cannot conclude without saying that such a mechanic as Mr. Stephenson, who can neither calculate, nor lay his designs on paper, or distinguish the effect from the cause, may do very well for repairing engines when they are once constructed, but for building new ones, he must be a great loss to his employers, from the many alterations that will take place in engine-building, when he goes by what we call the rule of thumb." In a preceding sentence, he is taunted with being like the fly going round on a crank axle, and shouting "What a dust I am kicking up." Gentlemen, the dust that George Stephenson kicked up formed itself into a cloud, and in every part of the globe to which it reached it carried with it and planted the seeds of civilisation and wealth. Notwithstanding the hard and illiberal treatment to which he was exposed, he was not beaten. On the contrary, by his genius and his never-failing spirit he raised himself above the level of the very men who opposed every effort he made towards the advancement of engineering science—efforts which have resulted in a vast improvement of our means for extracting the valuable products of the earth, and also of our means of conveying them at a cheap rate to distant markets. It is not too much to say that George Stephenson headed a movement by which alone could employment have been found for an ever-increasing population. But, gentlemen, while claiming much for the great achievements of my relative, I must not be guilty of forgetting others for the purpose of glorifying my own idol. Whilst George Stephenson's mind and

energies were devoted to the advancement of railway engineering and the improvement of the locomotive, pushing his railways everywhere, at home and abroad, and bringing the nations together by land, other great minds were at work, in designing and improving the marine engine, and were bringing the nations of the earth together by water. Among the men who stand out most prominently in connexion with this work, I may mention the names of Bell and Hall. Mr. Chairman and gentlemen, I never think of Hall's name without sorrow. He was unable to cope with the opposition which was brought to bear against him. His engines were condemned, taken out of the ships, and cast aside as useless; and yet, sir, the principle of Hall's marine engines, designed about thirty-five years ago, is at the present moment the only known invention which enables steamships to traverse oceans which could not have been traversed without his principle being adopted. His invention enables us to distil salt water to serve our marine boilers, and he has saved this country millions of tons of coal, yet he was never rewarded or recognised. George Stephenson was more fortunate. He lived to know that his name was a household word among his countrymen. He received honours and rewards from many foreign Governments, but the Government of his own country allowed him to pass away without recognition for his great services—services that have gone far to make England what she has become—honoured, wealthy, and powerful. That which Government did not do, George Stephenson and his eminent son Robert did for themselves. They sought nothing from Government, but looked to public opinion for encouragement, and had an unselfish desire to raise their profession in its scientific and practical aspects, and at the same time to add to the wealth of their country and the welfare of the whole human race. These things they did, and they were rewarded in the way they most desired by the applause of their country. Gentlemen, the great wind storms that traverse our forests leave their marks behind them. Like these rare winds, George Stephenson and his son have left their marks, but whilst the storms leave destruction and ruin, these two men have built up the marks of their progress which have stood firm against every storm; and, looking back at

the disasters that have taken place within the last two years, I maintain that the great works which George and Robert Stephenson constructed may be considered now more than ever as monuments of their fame. I had made a few notes of the matters on which I intended to speak to-day, but I find, sir, that many of my points have been taken up; and, therefore, I will not detain you by dwelling on matters that have been already ably dealt with. There is, indeed, little for me to add to my brief remarks. The speech that has been made by you, sir, [looking towards Sir Wm. Armstrong] tells us so much of George Stephenson that I have nothing to desire, and nothing to ask for further than that you, Mr. Chairman and gentlemen, will accept my sincere thanks for the part you have taken in the great public demonstration we have seen to-day in honour of George Stephenson's memory, and in recognition of the great services he rendered to his country.

Mr. C. M. PALMER, M.P., said he had to ask them to drink the health of the Mayor and Corporation of this important town. He was sure he not only expressed the feelings of that assembly, but of the people throughout the country, when he said that they thanked them most heartily for the admirable arrangements which they had that day made, and which had tended so materially to the success of that centenary. Possibly there were many who were not aware that the idea of holding a demonstration in celebration of the birth of George Stephenson emanated from the Mayor and Corporation of Newcastle. (Hear, hear.) He would not enter upon what had been so eloquently said with reference to the name of Stephenson. Possibly there was no one in that room who had derived greater advantages and benefits than he had from the introduction of the locomotive; and he felt some degree of satisfaction and pleasure in having, in a very trivial way, contributed somewhat to the interest of the proceedings. That contribution consisted in sending what he believed to be the second oldest engine in the world, to take part in the exhibition of that day, from the Killingworth Colliery, (Hear, hear.) It had occurred to him—although it might be a gift of little value, but nevertheless appreciated—that the engine might be acceptable to the Mayor and Corporation of Newcastle. (Cheers.) It could not be of use to him as

the owner of the Killingworth Colliery, the seat of the great exploits of George and Robert Stephenson; and believing that it might be with advantage placed in some public position in Newcastle, he most heartily wished the Mayor and Corporation to receive it, and dispose of it as they thought best. (Applause.) It might serve as a contrast between the engines of old and those vastly improved engines they had seen that day. (Cheers).

The MAYOR, in responding, said: Gentlemen, on my own behalf, and on that of the Corporation of Newcastle, I beg to thank you very cordially for the way in which you have received the toast proposed by Mr. Palmer. I may say, for the Corporation, that they have felt it an honour and a privilege to celebrate the centenary of the great man whose birth we have met to commemorate to-day—that man who by his genius has brought such incalculable benefits, not only to this town and district, but to the country and the world at large. Providence has raised up pioneers in this great railway system to whom graceful reference has been made by Sir William Armstrong; but upon George Stephenson devolved the task of inventing power, and the skill of developing the system which has spread all over the world such untold blessings. This duty was imposed upon him, and he nobly performed it. The soundness of his judgment secured for him the confidence of such men as we honour at the present day—such men as the Peases and Backhouses, whose co-operation was necessary for the success of his undertakings. His shrewdness and strict economy in carrying out the various schemes he undertook enabled him to make then nearly all successful. (Hear, hear.) Well, gentlemen, shall we not do honour to such a man as George Stephenson? (Loud cheers.) Surely the scenes which we have witnessed to-day, and your presence here to-night, supply the answer. Shall we be content with a mere spectacular display such as that of to-day, noble as it has been? Let us try to erect to his memory some monument that will carry down with the blessings and benefits which he has already conferred upon us—such an institution as will confer mental advantages on the rising generation which Stephenson himself would have so cordially desired to see. (Loud cheers.) I trust that this will be the practical outcome of this demonstra-

tion. (Hear, hear.) I must not detain you longer. I beg to thank Mr. Palmer for the very generous offer he has just made to the Corporation. They will gladly assent to it, I am sure. And I beg to thank you very much for the manner in which you, sir, have so kindly proposed, and to which this company has so heartily responded, the toast of "The Mayor and Corporation of Newcastle." (Long cheers.)

MR. ISAAC LOWTHIAN BELL: Gentlemen, I am commanded by the Chairman to ask you to join with me in drinking to "The Nationalities of the World, and may they be brought into lasting and loving intercourse by the locomotive, coupled with the health of our ally and neighbour, His Majesty the King of the Belgians." (Cheers.) Philanthropists and philosophers have dwelt upon this subject at great length, and many have been the plans which have been proposed for bringing the whole human race into loving intercourse. It will, however, be no part of my duty to dwell upon these plans. My main object this evening is to consider how far the locomotive engine has conduced to that great end. Now, sir, it is perhaps a little significant that the six leading names in connexion with this great movement, which we are met together to celebrate this evening, were members of the Society of Friends—members of a society which has done more than any other in insisting on the cultivation of loving intercourse with foreign nations—(hear, hear)—at Darlington. (Cheers.) It, cannot, however, be contended that the locomotive engine, up to this period at all events, has proved an entire success in securing complete peace to the human race. If, however, it has not succeeded in effecting this, at all events it may fairly be admitted that railways have done a vast deal of good in alleviating the horrors of war. (Cheers.) Wars have not been prolonged, as they were in olden times, for years and years, but are now brought speedily to a close; and as we all well know death and disease were not produced by the actual casualties in the battle itself but by the transport of troops in the field of action, which has been greatly facilitated by the locomotive engine. I do not believe that there is any plan more likely than another to conduce to the peace of the human race than by consulting and promoting their individual and collective interests, and this, in

my opinion, is best effected by an extension of commercial relations. Now, I know of no plan—and the speeches of this evening will bear me out in what I am about to say—that there is nothing which has been done more in this direction than the locomotive engine. It has established commercial relations among all nations. I have no doubt that the next fifty years will see a corresponding improvement in the relations of the earth produced by this cause. (Cheers.) It cannot be out of place, I think, to quote a railway, which is familiar I am sure, to you all, and its quotation seems to me to be peculiarly apposite to the present occasion, seeing that it was in connexion with that railway that George Stephenson laid the foundation of his own, and, I may say, of the nation's present greatness. (Cheers.) The Stockton and Darlington Railway, with which his name was more particularly associated, was, as you all know, commenced about half a century ago. At that time I find, on looking over the figures in connexion with the Stockton and Darlington Railway, that its length was something like 15 miles. The North-Eastern Railway, which may be said to have grown out of that undertaking, now extends over 1,500 miles. The capital of the Stockton and Darlington Railway Company was £170,000; the capital of the North-Eastern is now 55 millions. The former company had carried, at the end of the fourth year of its existence, something like 150,000 tons of coal per annum. Last year, the North-Eastern Railway carried along its length much more than the entire output of coal that was raised in the United Kingdom at the time I have just spoken of, namely, in the year 1830. Last year, there was smelted in connexion with the North-Eastern Railway an amount of iron equal to something like four times the entire make of the United Kingdom in 1830; and, as far as passenger traffic is concerned, I observe that in 1830 the Stockton and Darlington Railway earned for a whole year £413, which, as nearly as I can make out, is what is earned by the North-Eastern in every two-and-a-half hours of its existence night and day. (Laughter and cheers.) Gentlemen, fifty years ago railways were not looked upon with the favour with which they are regarded at the present time. My friend, Mr. George Robert Stephenson, has spoken of the manner in which

the first attempts of his illustrious relative were received by the engineering profession of this country ; but we must remember that the name of railway was scarcely more favourably spoken of by those who had the power either of promoting or of impeding its progress. I am not sure whether my friend, Mr. Harrison, was one of those engineers who had to steal over the property of great landlords in order to complete their surveys, or whether he was tempted to invade the sanctity of some of those fox-coverts which appeared in the eyes of some of the landed gentry of that day to be of more importance than the inter-communication of a nation. (A laugh.) There was, however, one nation in Europe which seemed to entertain a high opinion of the advantages that railways were calculated to afford. First and foremost in this work was an old and cherished ally of England—I mean the kingdom of Belgium. (Loud cheers.) The enlightened sovereign of that country, the great King Leopold, at once appreciated the enormous advantages that such an institution would afford to the people entrusted to his care—a people among all the nations of Europe not behind hand in their appreciation of the advantages of liberty of thought and liberal institutions ; and a people, moreover, of indomitable energy and perseverance. (Hear, hear.) The prognostications of that great and good man were amply justified, and he at once sought to recognise the advantages that George Stephenson had conferred upon this country by honouring him with warm and constant friendship, and by inviting him to extend the railway system to Belgium. (Hear, hear.) It is said that the gratitude of individuals, and no doubt of nations, is a very short-lived virtue, and I think it cannot be otherwise than highly pleasing to this community, and to the successors of George Stephenson, to be told on this occasion that the benefits conferred upon Belgium by their illustrious engineer nearly half a century ago, still live in the minds of that great industrial people. (Hear, hear.) The present King of the Belgians, the son of Leopold, has himself spoken in my hearing in terms of the greatest respect of those services. I personally cannot forget that, when an industrial congress held a meeting in Belgium some two years ago, in which I had the honour to take a humble part, that sovereign not only

manifested his personal and friendly feeling towards this country, but, in order to signify the interest he takes in industrial pursuits, honoured us with an invitation to dine with him in his palace at Brussels. (Cheers.) The royal hospitality was afterwards extended to every member of the Institute in question. (Hear, hear.) I said just now that gratitude is often a very short-lived virtue; but, as regards the appreciation and gratitude of the Belgians, the contrary has been proved to be the case on this occasion. His Majesty, the King, has sent over to this kingdom, as a proof of the interest he takes in the proceedings of to-day, three gentlemen high in his confidence, asking them to convey to you—which I am sure one of them at least will do in suitable language—his hearty good wishes towards the proceedings of to-day. But he has not contented himself with what I have just stated. His Majesty has also sent a substantial expression of his sympathy; but however liberal we may consider the contribution towards the Memorial College, the value in that respect is wholly eclipsed by the graceful manner in which the gift has been offered. (Hear, hear, and cheers.) I would like to supplement, in a few words, the observations that have fallen from a speaker as to the extreme propriety of marking the proceedings of the day, and the sense we entertain of the labours of George Stephenson in some more enduring fashion than by the magnificent display of this morning. Allusions have been made during the evening to the "rule of thumb." I should be the last in the world to disparage that old rule; it was one which served very good purpose in the time of Stephenson, for it was the only rule at command at that period. Times, however, have greatly changed since then. Stephenson himself marked, by his conduct and his continued perseverance in acquiring knowledge, the immense importance he attached to education; but, whatever value education might have at that time, its benefits are infinitely increased in the present day. In fact, that which was desirable in the days of Stephenson has in our days become a necessity. (Hear, hear.) It is no longer a "rule of thumb" that we have to deal with. We have to deal with competition proceeding from every nation of the world. I am one of those who look without apprehension upon what is being done by other nations. At the same

time it is idle to suppose that we can keep up with the rest of the world unless we have men qualified to assist us in maintaining our position. I trust that we shall raise up a monument worthy of ourselves and worthy of the name of George Stephenson. (Cheers.) We have heard to-day of what has been done in Chesterfield, where an enduring monument has been raised up to the memory of George Stephenson. I trust, therefore, that we here in Newcastle—in the very place of his birth, and in the very sphere of his first triumphs—will not be behind-hand. (Cheers.) I trust sincerely that the wishes that have been expressed by the Mayor may find a speedy realization. In conclusion, I have to propose to you “The healths of the representatives of his Majesty the King of the Belgians.” (Cheers.)

M. VAN DER SWEEP, who spoke in English, said: The great honour devolves upon me to reply to the toast, which Mr. Isaac Lowthian Bell has given, of the health of His Majesty Leopold II., King of the Belgians, and which has been so enthusiastically received. To Belgium it is a subject of national pride that her sovereign is universally esteemed and respected, and particularly in this noble country, England. My colleagues and myself are grateful for the proof just accorded us, and for which we beg you to accept our sincere thanks, as also to Mr. Isaac Lowthian Bell for his expressions so full of sympathy and good-will. There are numerous friendly relations which unite England and Belgium; and foremost amongst these we must not lose sight of the services which the illustrious engineer, whose centenary we to-day celebrate, has rendered to Leopold I., and to Belgium in having constructed the first iron railway in our country. We are present with you to-day by command of King Leopold II. and his Government, to render homage to the memory of George Stephenson, and to recognise the services he has rendered to Belgium. We are profoundly touched by the cordial reception accorded to us on all sides, for which we beg to thank you from the bottom of our hearts. We wish every success and prosperity to the college which you are about to erect to perpetuate the memory of George Stephenson. Again we thank you. (Loud cheers.)

Mr. COWEN, M.P., on rising to propose the toast of “The Railway

System—The North-Eastern Railway Company," was received with great cheering. He said: Mr. Mayor, Mr. Sheriff, and gentlemen, my friend, Mr. Hamond, has reminded me of three facts: first, that a large number of gentlemen present are anxious to leave by an early train; secondly, that after I sit down there are at least ten gentlemen who will have to ask your attention; and, thirdly, that the fireworks are about to begin. (Laughter.) The summary of these facts means that all succeeding speakers are to limit their observations to the least possible space. I, at least, will take the hint, and for the toast that I have to ask you to drink I shall confine my observations to simply proposing it. ("No, no.") The memory of Stephenson, and the work he has accomplished in connexion with railways, have been expatiated upon at length to-day, and it is not necessary to enter upon any repetition. We have been asked to imagine what would be the condition of England if railways were obliterated. A better mode of illustrating the advantages they confer could not well be suggested; but there is no district in the country that would suffer more by such a transformation than the district of Tyneside. (Hear, hear.) There is no district to which the railway system has contributed more largely. It has indefinitely added not only to the wealth but to the comfort of our population, and the railway company that personates this power on Tyneside is the North-Eastern system. Sir, we sometimes grumble at the North-Eastern Railway. (Hear, hear.) It is the misfortune of all successful systems and successful men to be grumbled at. Their success usually encourages antagonism—sometimes generates envy, and possibly the North-Eastern Company's success may make other companies, either in existence or in embryo, envious of their position. I have no doubt it has its weaknesses—possibly its faults. (Cheers.) The North Eastern Railway Company would not be human if it had not had some imperfections. But I will say this, that we might go further and fare worse. (Hear, hear.) With all its weaknesses, if such it has, it has largely contributed to the wealth of Newcastle—(cheers),—and I trust the town will never be ungrateful. (Hear, hear.) The company has benefited, and we have benefited also. The service has been mutual. I would have all on this festive occasion to bear in mind the services of those who,

in a comparatively humble way, contribute to our comfort and to the prosperity of this demonstration. (Cheers.) It is customary to recognise the services of the directors, chiefly and specially. No doubt the directors are necessary and important persons, but without the assistance of some one else, the directors would find their task very difficult. (Hear, hear.) The officials of the North Eastern Railway Company direct an organisation as large and complex, and involving as great anxiety as the Government of some small States. (Hear, hear.) I trust in recognising the services of the North Eastern Railway, we shall also recognise—although we cannot particularise them—the services of the officials of the company. (Cheers.) Gentlemen present should bear in mind that to-day there have been deposited in Newcastle some thousands of people in ease, comfort, and safety. Conceive the labour, the energy, the organising power, and the care that are necessary for the performance of that work—(hear, hear);—and if you can you will, with me, drink most cordially to the health of the officials of the Railway Company as represented in this assembly by my friend, and I believe the friend of most present, Mr. Henry Tennant. (Cheers.) Success, gentlemen, to the railway system generally, the North Eastern Railway particularly, and especially to the officials of the company represented by Mr. Henry Tennant, the general manager. (Loud cheers.)

MR. HENRY TENNANT, in responding, said those who looked at the figures would see that it did not require any large amount of speechifying to show the importance of the railway interest. (Cheers.) Many of the gentlemen there that day had stood and admired the engines which passed before them in review. They saw sixteen magnificent engines. But let them imagine that at that hour, while they were feasting in that room, there were in Great Britain, under steam, not less than 10,000 engines. (Cheers.) As regarded the North-Eastern Company itself, Mr. Cowen had intimated that no institution that was human could be free from imperfections. He (Mr. Tennant) did not blame the North-Eastern for the imperfections which attached to all human organisations; but he *did* think he might claim for the North-Eastern Company, that it knew it had duties to discharge to a large body

of individuals—he was going to say of men who had entrusted to the directors of that company the large sum of fifty-five millions of money—that they had their own views, as Mr. Cowen had said, with reference to their duties connected with the daily administration of the great system, and that they had duties to the district which they served. They had also duties which they owed to the nation, of which they formed no unimportant part; and they recognised those duties—those responsible duties—and were always prepared to do that which was right to all parties concerned. (Hear hear.) “To err is human,” as Mr. Cowen had said, but he believed that they and all who were connected with themselves were inspired by the desire to do all that was due to the trade and people of that important district. (Applause.)

Sir MATTHEW WHITE RIDLEY, Bart., M.P., said: Gentlemen, this town and neighbourhood have been well engaged in a mighty demonstration in honour of George Stephenson, and we are also engaged in a cordial recognition of that object. This very evening the memory of George Stephenson has been proposed by a distinguished successor in the engineering world—by my friend on the right—in the very interesting speech we have heard. I think we have done well in so honouring the memory of George Stephenson, and in connexion with the toast I am asked to propose, I will venture to say, that if that great man whose memory we are commemorating were still living, he would feel no greater tribute paid to him than by the high character and the success of the engineering profession of which he was, in one sense, the pioneer, and to the rise of which he did so much to promote. Gentlemen, the age of George Stephenson was, in the first instance, a very sceptical age. As you have heard, men of all kinds, and even men who, it is said, ought to have known better, looked with considerable scepticism—nay, with hostility—upon the projects which he entertained. Soon after that, the age became a credulous one, for they rushed into the wildest schemes, involving difficulties in engineering which would frighten even Mr. Harrison, whose name I am about to couple with this toast. (Cheers.) I am hardly aware what I am to describe as the characteristic of this age. I will not say it is credulous, I will not say it is over-confi-

dent, but I think I may fairly say that we have almost an implicit confidence in the engineers who manage the great commercial enterprises—the great locomotive schemes in this country. (Cheers.) It may be that we have been accustomed to their giant successes—that we have been accustomed so much to hear, especially of late years, of such great improvements and advances in science, that we can almost believe in anything being possible. It may be, on the other hand—and I will state this reason for my belief in our confidence—that we have seen by experience that they have carried out with such perseverance, energy, and success, the work begun by George Stephenson. This great railway system, of which we have been speaking to-night, is, in the main, a safe and a sure system, and one which carries with it the unabated and the entire confidence of the people of this country. It is with that spirit of confidence, that, without trespassing further upon you, I ask you to drink the health of the engineering profession, coupled with the health of my friend, Mr. Harrison. (Cheers.) But, gentlemen, I have also been asked, in connexion with this toast, to request you to drink the health of the locomotive superintendents of certain railways who have contributed very much to the interest of the proceedings by sending various engines to be inspected by the people of this district; and it is an especially interesting fact that the first name which I will couple with this portion of the toast is that of Mr. Edward Fletcher, the locomotive engineer of the North Eastern Railway—(cheers);—and you will feel a special interest in drinking the health of that gentleman, when I tell you that he was concerned in working the “Rocket” engine, which was tried before the opening of the Liverpool and Manchester line. It is an interesting fact that the locomotive superintendent of this great system, which has been spoken of in such very kind—I will not say flattering—terms by Mr. Cowen, should have himself driven this first successful engine which was put upon the first, or rather say, the second successful railway which was made in this country—that that gentleman should be amongst us this evening, and that we are privileged to drink his health. (Cheers.) I have also the names of Mr. Webb, the locomotive superintendent of the London and North-Western, and Mr. Stirling, who acts in the same

capacity for the Great Northern line. (Cheers.) I give you the health of the Engineering Profession, coupled with the name of Mr. Harrison, and of the locomotive superintendents whom I have named. (Cheers.)

Mr. T. E. HARRISON, who, on rising to respond, was received with cheering, said : Now, gentlemen, I rise with great pleasure to respond to the toast which has been proposed to you, "The Success of the Engineering Profession," and I do so with the greater pleasure because it was in this town, more than fifty years ago, I studied that profession, under the late Mr. Wm. Chapman, and the greater part of my professional career has been carried on in connexion with this town and district. It may be asked, What is the profession of a civil engineer? I may answer that by quoting from the charter of our institution, the object which is there set forth, viz., "The art of bringing the great source of power in Nature for the use and convenience of man." I say that that is a great, a noble, and possibly it may be an ambitious object; but, at the same time, if those who, like myself, have been fortunate enough to have practised that profession during the greatest stage of engineering that perhaps has ever taken place—I may say for the institution to which I have the honour to belong, that we have carried it out with a success that I believe has been unparalleled. In connexion with that, I will just remark that, in addition to the words I have quoted, there is there set forth a variety of objects to which the attention of engineers is specially directed. The first object stated is mechanical science, then harbours, the improvement of rivers—the navigation of rivers; but you will not find, although that charter is dated only 1828—after the time when the Stockton and Darlington Railway had been completed—that there is a single word mentioned in that charter with reference to railways. (Hear, hear.) I will not detain you longer. I will merely further say, that you have within your sight every day, in the improvements which have taken place on your noble river, one of the finest engineering works that I know of—(cheers)—and one which, I am bound to say, never has received that meed of praise to which I believe it is fully and fairly entitled. It has been a work conceived by a noble mind to carry out that

improvement. It could hardly have been within the contemplation of an ordinary engineer—certainly not any ordinary engineer in these days. It has been successfully carried out, and I can say from experience, having lived on the banks of that river for a number of years, that it has been the means of increasing the trade of the port to an extent of which you would never have dreamed. (Applause.) I thank you, on behalf of the Institution of Civil Engineers, for the kind manner in which you have received the toast.

Mr. F. W. WEBB, of the London and North-Western Railway, and Mr. PATRICK STIRLING, on behalf of the Great Northern Railway Company, also responded.

Ald. HAMOND, in rising to propose the next toast, said: Mr. Mayor, Mr. Sheriff, and gentlemen, by the kindly consideration of our worthy friend, our excellent chairman, I have the pleasure of introducing to you the next toast, which is "The Iron and Coal Trades." (Cheers.) Upon an occasion like the present, and surrounded as I am by gentlemen so deeply interested in these trades, it would be exceedingly inappropriate were I to bring before their notice a long array of figures showing the millions of money and the hundreds of thousands of families engaged in these two great industries. All we have to consider in the North of England is this: that they are the two handmaids of England's commercial prosperity. They have been the means of creating a vast network of railways in all civilised nations, producing a rapid internal communication for goods; and they have created our immense mercantile marine, which is the wonder and admiration of the world, to convey the same also by steam from country to country for the use and benefit of mankind. But confining myself to those two industries, I am sorry that I cannot report much progress in their prosperity. A coalowner may look to his turn-book, and say that he has vessels for two or three weeks to load, and he may rub his hands and think a better time is coming, but when he endeavours to make future contracts, prices are no firmer than they were before, and he gets no better return for the capital employed, and the consequence is the men in his employ get no higher wages in their turn. So with regard to the shipbuilder. He may look at

his order-book, and may have vessels on hand for six or nine months, but when he comes also to try and make prices firmer on his side he finds that the demand is not to be had, and he can get no better prices; and he, in his turn, receives no further advantages for his capital, and his men no higher price for their labour. How is this? England is surfeited with capital. Her men have still the stalwart arms which used to defend our country in days gone by, when the fatal shaft was sped in defence of England's honour; they are as indomitable and as persevering; and, therefore, surely something must have occurred among us when we find we have now to struggle more and more every day to preserve the position which we have so long held as the chief carrying country of the world. Are we too heavily weighted? Are we running the race fairly with our competitors? The time will come when we must look frankly and fully in the face whether we are to run the race with our foreign competitors as we are doing. We ought, on our side, to be free from fetters; and the race ought to be fair and even on both sides, and we ought not, on one hand only, to be burdened by heavy dues on our manufactured goods in foreign countries, while they are to have the privilege of competing with us, and their goods are to be admitted perfectly free. The time is coming, and will approach far more quickly than we are aware, when the race of England with her foreign competitors must be considered upon fair and clear grounds. The reciprocity must not be a name merely, but it must be a reality. The reciprocity must be a perfect one, and then we shall have a fair and legitimate trade. Gentlemen, in having the privilege of introducing this toast to you, I have the extreme pleasure of being permitted to couple with it the name of one whom I know you are all proud of. Justly have we met to-day to commemorate the centenary of an honoured name—the name of a man we claim as a child of the North. But I am happy to say we have another George, a child of the North, a living memento of what labour and capital combined are able to achieve in this country, and by slow but sure degrees, by indomitable perseverance in industry, and by ever pursuing the road of high honour and strict integrity—we have another living George—Sir George Elliot—of whom the North is justly proud. Gentlemen, I couple with the toast of the

iron and coal trades the name of our valued friend, Sir George Elliot. Long may he be spared in health to enjoy the honours he has so nobly won and the position he has achieved by his own unaided efforts! (Applause.)

Sir GEORGE ELLIOT, Bart., said: Mr. Mayor and gentlemen, the toast which I have to respond to is "Success to the Iron and Coal Trades." I remember very well hearing, some years ago, Sir Wm. Armstrong lecture upon the necessity for economy in coal. Since that time electricity and many other things have been much forwarded, and what puzzles me now is what is to happen to the coal trade in the future. Besides the iron and coal trades we have in this part of the country, we must remember that we have also the North-Eastern Railway here, with all its omnipotence, and we have numerous industries, which have been vastly developed of late, and whose future is of enormous interest to all concerned. But still there are other coal producing parts of the world as well as Newcastle; and, looking at the great development which has taken place in other districts during my observation of something like forty years, I cannot see how the progress, here in the North, is going to be sustained in the present state of the resources of the country, and by resources I mean our mineral resources. You have iron and coal, and numerous allied industries, industries developed close by this grand and noble river—a Bosphorus in itself. When I see the docks and railways extending in every part of the kingdom, it occurs to me—and on an occasion like this, I may be permitted to say it—that in this particular locality I do not see anything like the same ratio of prosperity in this land of progression for the future as during the last thirty years. You have the resources of Durham and Northumberland, and, when I look round the United Kingdom, at Manchester, in the Midland Counties, and in the South, I do not see that the progress in this district is so great as it is in those places. You have a great advantage—you have the facilities of enterprise, ingenuity, and science, and have been enabled to procure from the ironstone of the North of England the means of making steel. It may be said that our resources, at any rate, will last a hundred years, and I must admit that I at present fail to see whether or

not it is to be supplemented by electricity. I do not think that in Durham or Northumberland we have the power to sustain anything like the progress which has been going on for the last twenty or thirty years. But at the same time, speaking of the iron and the coal, I take it that in this immediate locality we have a resource for the country which will sustain a very high reputation. (Hear, hear.) Judging from the comparison with other parts of the world, I think the production of iron and fuel is here the cheapest; and in this respect England is not going to be superseded. The work must be done with care and economy, and all possible ingenuity and skill must be brought to bear, in order that we may keep up our position; and to maintain anything like progressive development which is going on; it will be requisite for those who employ their capital in the works to do the work in the best way and as cheaply as possible. (Cheers.) I shall say no more than merely thank you very much for the courtesy and cordiality with which you have received the toast. What I have said, I know, will be derided by many, but it is the result of many years' reflection and observation. (Cheers.)

Mr. DAVID DALE: Mr. Mayor and gentlemen, I presume that it has been thought fitting that, on such an occasion as has brought us together to-night, some one from Darlington should be asked to say a few words, because of the important part which that town has played in developing railways, and in affording an opportunity to the genius of George Stephenson to manifest itself. (Hear, hear.) I can only express my regret that the distinction of being the spokesman of Darlington has not fallen to the worthy Mayor of that town, and also that some of the most eminent citizens of Darlington are to-night unavoidably absent. Six years ago we celebrated in Darlington the fiftieth anniversary of the opening of the first public railway, and it was with justifiable pride that we then pointed to the enormous tree which had grown from that very insignificant grain of mustard seed—the Stockton and Darlington Railway; that we pointed to the hundreds of thousands of miles of railway that now girdle the earth; that we pointed to the millions who are now employed in connexion with railways, and to the tens of millions of money that are invested in railways; and

that we dwell—or if we did not then dwell, perhaps you will now permit me to do so—on the fact that, extraordinary and significant as these figures are, they very inadequately express the results of the railway system. The results of that system are to be found in the marvellous addition it has made to the sum of human capability, and even to the duration of human life as measured by the proper standard of the amount of work that may be accomplished in a life-time. In all these considerations, however, there is to my mind—and I dare say to the minds of many others—the after-thought, or the under-current of thought, which is expressed in the poet's lines—

“For we throw out acclamations of self-thanking, self-admiring,
With, at every mile run faster, ‘O, the wondrous, wondrous age!’
Little thinking if we work our *souls* as nobly as our iron,
Or if angels will commend us at the goal of pilgrimage.”

No such thoughts, however, arise in connexion with the subject of to-day's celebration, for we celebrate not alone the genius of George Stephenson, not alone the success which he achieved in the world's race, nor even the extent to which he contributed to the world's material prosperity, but we celebrate also—and I would venture to say firstly and chiefly—the great moral qualities for which he was distinguished. We point to George Stephenson not only as a man whose name is enrolled on the pages of his country's history, not only as a man who achieved for himself wealth and eminence, but as one whose grand heroic qualities, whose simplicity of character, whose self-restraint and self-reliance must make him, for all time, an example to those who may have nothing of his genius nor any opportunity of distinguishing themselves in the world. It is in this way that the character and career of George Stephenson must be an incentive and an example to the great majority of the thousands who have assembled to-day to do honour to his memory. This much I felt impelled to say on the subject of to-day's magnificent manifestation. And now, sir, in submitting to you the toast of the Tyne Commissioners, which has been entrusted to me, I would point to the enormous increase in population and in industry which has taken place on the banks of the Tyne within the last fifty years as compared with the relatively stationary character of other places having equal railway advantages; and I

would ask you to infer from this that not even those great iron roads, of which we have heard so much to-day, can do as much for the development of a town as Nature's great highway, bearing always in mind, however, the general law—that industry and skill must co-operate with Nature to secure all the advantages she offers. Not even your fine river, the Tyne, would have done what it has done for you as one of Nature's highways if it had not been skilfully looked after and carefully engineered. Mr. Harrison's weighty testimony that this has been done, renders any insistence on the point by me unnecessary; and I therefore content myself with heartily proposing the toast of "The River Tyne Commissioners," and it gives me pleasure to couple therewith the name of their Chairman, Mr. J. C. Stevenson, M.P. (Loud Cheers.)

Mr. J. C. STEVENSON, M.P., in acknowledging the toast, said: It was a great satisfaction to the Tyne Commissioners to-day to have the privilege of receiving on board our steamer on the upper Tyne so many of your guests and taking them a trip down the river. (Hear, hear.) A few years ago it would have been impossible for any vessel above the size of a keel to have got up the river as far as we got with the steamboat to-day. (Applause.) We had the pleasure, too, of observing above bridge the iron framing laid down of a large ocean-going steamer. (Hear, hear.) With the large works in improving the river and increasing its facilities for navigation, the name of Mr. Ure must ever be closely identified. (Hear, hear.) I should like to thank Mr. Harrison for the accurate testimony he has borne to the great work which Mr. Ure has done in connexion with these improvements. The Tyne, probably of all the rivers in the kingdom, was the one, at the time these improvements were commenced, capable of affording increased facilities and better adaptation for traffic. Mr. Dale has spoken of the relative importance for traffic purposes of our natural highways and our railways. Whilst we are giving full honour to Stephenson for his work in connexion with the locomotive, we must not forget the advantages to trade derived from the marine engine and the steamboat. (Hear, hear.) Within the last few years you will remember that we have had bad harvests, and been compelled to resort to our large food supplies, firstly to the great systems of railway in America, and, secondly,

that enormous development, the ocean steam traffic, which has taken place within the last few years. In speaking of the use of our natural highways, we must not also forget the advantages derived from the steam dredger, which has effected such work, for example, as that in the Suez Canal, as a powerful instrument in improving river navigation. (Applause.)

Mr. W. H. STEPHENSON, in proposing "The Trade and Commerce of the District," expressed his hope that the cloud which had been so long resting on this country would lift and speedily disperse, and that commercial success would again visit that neighbourhood.

Mr. JOHN ROGERSON, in replying, said they were now producing in that district as large a quantity of pig iron as they had ever done before. They were also now building a greater number of steamers and sailing vessels in that district than had ever been built there before. They were owning in this district a greater number of vessels and a larger amount of tonnage than ever they had done before. The largest number of vessels that had ever gone out of any port in the world in a given year had gone out of the river Tyne. They were the largest port in the world, the greatest producers of iron in the world, and the greatest users and exporters of coal. With cheap money, good hearts, and a few men like the late George Stephenson, they would secure a commercial future exceeding anything they had yet known. (Cheers.)

Sir WM. G. ARMSTRONG said: I shall not trouble you with another speech at this late hour; but I wish to draw your attention to the fact that we have present at our table to-night, two interesting and distinguished visitors from China. (Applause.) The rarity of the presence of two Chinese gentlemen at an English banquet would alone be a sufficient reason for not allowing these proceedings to conclude without drinking their health, and recognising their presence, and expressing to them our cordial welcome. I give you the health of the Chinese Admiral and his companion—Admiral Ting and Captain Lin Tsai Tsan. (Cheers.)

Captain LIN TSAI TSAN, who was received with general applause, said: Mr. chairman and gentlemen, I thank you for the kindness which we have received this evening, and also since we have arrived here. Though we are in a foreign country, we feel that

we are amongst friends. (Cheers.) The authorities and people of the town of Newcastle have done their best to make our stay here a pleasant one. (Cheers.) We feel a pleasure to be present here to-night to take part in honouring a man who has done so much for your railways, which we hope soon to see introduced as largely into the Flowery Land. We have already taken part in the introduction of the first Chinese admiral to your country—(cheers)—who has come to Newcastle with the object of conveying away from it a Newcastle ship to the Celestial Empire; and we hope we shall soon see more ships of this honoured nation afloat in Chinese waters, and that before another centenary comes round our flag will be seen floating alongside yours, and that this will tend greatly to establish more friendly intercourse and to increase the commerce of China with the nations of the world. (Cheers.)

The MAYOR said: We must not separate, gentlemen, without proposing the last toast on the list—"The health of the honorary secretaries"—(hear, hear)—coupled with all the members of the different committees. Heartily and zealously they have contributed to the success of to-day, and it is a matter of great thankfulness to us that the arrangements have been carried out so successfully. To the hon. secretaries who have had the charge of the great procession you have witnessed all honour must be paid; and I cannot allow this opportunity to pass without stating to you how zealously they have worked for weeks past in order to bring about this result. It would be almost invidious to mention names, but I certainly must name the honorary secretaries, Mr. Holmes, Mr. Bunning, Mr. Amos, and Mr. Aldis. I will also couple with the toast the name of Mr. Haswell, who has contributed to the interest of the day's proceedings. I ask you to drink with great enthusiasm the health of the hon. secretaries, Mr. Haswell, and the various members of the committee, coupled with the name of Mr. Holmes. (Applause.)

Mr. HOLMES, in returning thanks, said it would be a poor compliment to the memory of George Stephenson if the matter were to end with the mere centenary proceedings and the feasting of that day. They had a higher work before them, and that was to found an institution which would be an honour to his name and an ornament to the town—an institution which should be

devoted to the technical instruction of future generations. In thanking them for the way in which they had received the toast, he would like to finish by saying that they hoped they should soon meet again to lay the foundation stone of the "George Stephenson College." (Cheers.)

Mr. HASWELL also responded.

The MAYOR intimated that the following telegram had just been received :—

Oxford Club, Fleet Street. Dinner in celebration of Stephenson's Centenary. Beg to congratulate the Mayor on success of demonstration to-day.

The assemblage then separated.

CONGRATULATORY TELEGRAMS.

While the company were dispersing, the following telegram was handed to the Mayor:—

From President Obermayer, Vienna, to Mr. Jonathan Angus, Mayor, Town Hall, Newcastle-on-Tyne, England. The Austrian Railway Officials and Engineers' Club in Vienna, to-day, whilst celebrating the George Stephenson Centenary at their banquet, send their collegial and best wishes of the day's proceedings in Newcastle.

The following, among other telegrams bearing upon the occasion, had also been received :—

The students of the technical sciences at the High School of Vienna, in Austria, beg to present their humble tribute to the memory of the creative genius of the great founder of railways and engine ring on the occasion of their centenary celebration of his birthday.

A party of Swedes and Norwegians assembled here, and honoured by the presence of their King, join with him in expressing their hearty sympathy with the commemoration of George Stephenson's centenary birthday, appreciating his genius that has placed the advantages of climates and beauties of scenery of distant countries within easy reach. On behalf of the company, HENRY HEYERDAHL.

THE FETE IN THE LEAZES PARK.

Not the least popular of the centenary entertainments was that of the evening *fete* in the Leazes Park. The chairman and members of the Town Moor Management Committee had made ample provision for the gratification of the public, and in addition to a choice programme of music, they had arranged with Mr. Bernasconi, of Newcastle, in conjunction with Mr. James Pain, of London, for a display of fireworks, to be conducted on a novel and elaborate scale. Although a charge of sixpence was made for entrance to the park,

with an additional sixpence for admission to the terrace, the combined attraction drew together a multitude estimated to consist of at least 30,000 persons, while still as many more assembled outside the gates to witness the pyrotechnic effects. The programme of music—conducted by Mr. J. H. Amers—was gone through in the most able manner by the three bands engaged for the purpose. The lake at an early hour of the evening was surrounded on each side, and circled round the island with variegated illuminated lamps; the effect of this beautiful arrangement being much enhanced by the appearance in the water at dusk of a beautiful gondola, with a white and crimson awning, and draped at the sides with lace, seated in which was a band of youthful instrumentalists. A neat paddle-boat, tastefully ornamented, was also rowed round the lake, the lady occupants of which gave a selection of vocal music, and the strains of each party as they were wafted over the bosom of the water fell pleasantly and gratefully on the ear. When darkness had succeeded dusk, the scene on the lake was still more beautiful. The sides of the gondola and awning were hung with illuminated Chinese lanterns, and the glow from these, blending with the delicate reflection of the variegated globes, assisted by the illumination in front of the refreshment house adjacent, produced a quaint and a charming spectacle, that drew forth the loudest expressions of admiration. The following was the programme for the display of fireworks, which was carried out under the personal management of Mr. Pain :—

Salute of Aërial Maroons, 4½ inches in diameter, fired from a mortar, and exploding with terrific reports.

Special Illumination of the Lake and Grounds by powerful Prismatic Fires, changing colour six times.

Ascent of Six Magnesium Gas Balloons, carrying very powerful lights, diffusing floods of intensely brilliant rays over the adjacent scenery, and discharging at a great altitude a variety of novel and pleasing Fire-works, concluding with beautiful Showers of Gold and Silver Rain, interspersed with gems of every hue.

Display of 100 Large Coloured Rockets, fired so as to blend the continued varied tints.

Special Device—the Cottage in which Stephenson was born; size, 20 feet by 30 feet, with inscription beneath.

Flight of Pearl Streamers.

Nests of Hissing Fiery Snakes.

The Firework Chromotrope, in Six Mutations.

Flight of Twelve Rockets (Parachute), each detaching Two Twinkling Stars, which change colour continually during their evolutions.

Ascent of Twelve Rayonet Tourbillions, forming Cascades of Fire in ascent and descent.

Grand Display of Ten Shells, 8 inches in diameter :—Birds of Paradise Plumes, Laburnum Blossoms, Golden Rain, Rubies and Sapphires, Emerald and Silver, Light Blue and Cerise, Purple and Gold, Silver Rain, Mauve and Pink, Heliotrope.

Mechanical Device.—The Blazing Sun, changing to an Immense Fairy Mountain.

Discharge of Two of J. Pain's 2 lb. Congreve Rockets.

Flight of Twelve Asteroid Rockets, each detaching Four Parachutes.

Flight of Twelve Rockets, with Peacock's Plumes.

The Southern Cross, a very beautiful device.

Second Display of Ten Shells, 8 inches in diameter :—Turquoise, Amethysts, Golden Pink, Chocolate and Dark Blue, Golden Cloud ; Red, White, and Blue ; Variegated Bouquet, Silver and Ultramarine, Dark Green and Pink, Golden Rain.

Second Illumination by Prismatic Lights of Six Changes.

Special Device—Stephenson's No. 1 Engine, "The Rocket," 30 feet by 20 feet, with the word "Rocket" underneath.

Ascent of Six of Pain's Prize Asteroids, finishing with the celebrated Silver Star.

The Pyrotechnical Harlequinade.

The Bouquet of Rockets, various.

Pyramids of Fire, reflecting with most natural effects an Eastern Sunset in all its beauty.

The Aerial Acre of Variegated Gems, produced by the simultaneous discharge of a number of large Shells.

The Vol au Vent, Parisienne Novelty, quite new.

Bouquets of Rockets, terminating in Clouds of Gold.

The Forest of Fire, as produced with such gigantic success in the United States of America during the last two seasons, producing the most realistic effects ever witnessed.

Ascent of Pain's Mammoth Asteroid Rockets, detaching Twelve Parachutes.

Grand Display of Aquatic Works, comprising Fiery Torpedoes, Golden Fountains, Rockets, Water Romans, Fish of various descriptions, Serpents, Skimmers, &c.

Special Device, Stephenson's Modern Locomotive ; size, about 20 feet by 30 feet, with inscription beneath—"1881."

Grand Display of Ten Shells, 12 inches in diameter, comprising Amber and Celestial Blue, Golden Pink, Jewel Shower, Silver Rain, Purple and Gold, Ultramarine and Silver, Golden Rain, Variegated Bouquet, Heliotrope, Great Golden Cloud.

Descent of a Mammoth Comet, from a great altitude, exploding a Mine.

The Oriental Tree, with superb foliage and coloured flowering Blossoms, suddenly changing to Iris Wheels, with coloured centres, finishing with Prismatic Coruscations.

Third Illumination by Prismatic Lights of six changes.

Aërial Contortionists, a most eccentric novelty.

Exhibition of the recently introduced Velas Romanas.

Flight of Fanfarronades.

Salvos of Aërial Saucissons, filling the air with intensely brilliant Fires of the most fantastic forms.

The Whirligig, in eight mutations.

Great Shell, forming the Aurora Borealis.

Ascent of Cometic Stars, being facsimiles of Meteors, with brilliant fiery tails.

Explosion of Sinbad's Jewel Case.

The Pleiades, or Seven Floating Stars.

Large Electric Shell, shedding an instantaneous flood of dazzling light over the surrounding scenery.

Grand Concluding Device—the Bust of George Stephenson, with an appropriate Motto.

Great Flight of 750 Large Coloured Rockets, forming a Vast and Magnificent Aerial Bouquet.

Another interesting device was a representation of "The Geordie Lamp," has been added since the programme was drawn up.

Feu de Joie !

The evening was most suitable for a pyrotechnic exhibition, and the magnificent display of brilliant stars that cast a sudden and splendid light over the whole of the neighbourhood, formed a most fitting and agreeable conclusion to the proceedings of a day that will long live in the memories of the people of Newcastle.

STREET ILLUMINATIONS.

During the evening, and even into the early hours of morning, the streets of the town presented a very busy and animated appearance. Very few attractions, however, in the way of illuminations were displayed, and the attention of the sight seers was chiefly bestowed upon watching the fireworks being set off at the Leazes Park, in admiring the illumination of the handsome front of the Theatre Royal, and gazing with delight upon the five electric lights shining from the establishment in Mosley Street of Messrs. Mawson, Swan, and Morgan. The daylight clearness of the light, and its beautiful delicate blue tint brought into strong relief the gorgeous hues of the bunting and decorations of the street. For hours crowds stood and gazed, while the upturned faces and the brilliant spectacle formed a most impressive picture.

THE POLICE AND THE PEOPLE.

A word of praise is due to the police. For the exigencies of the occasion, the available local body, consisting of 220 men, was augmented by 250 extra officers, drafted from the counties of

Northumberland and Durham, Sunderland, North and South Shields, and York; the total force thus numbering about 470 members. The duties of these men were agreeably lightened and facilitated by the admirable order and becoming behaviour of the people; but it is fair to say that, under the command of Captain Nicholls and other officers, the arrangements were of the most complete character, and were fully equal to the emergency. It is marvellous that a demonstration of such magnitude, and involving the assemblage of so vast crowds in the streets, should have passed over without accident, but such appears to have been the case, no mishap of any moment that could at all be identified with the proceedings of the day having been reported. There was, too, a most gratifying absence of drunkenness, the police-list of this class of offence on the evening and following day being actually smaller than that of ordinary and average occasions. This is the best commentary that can be passed upon the admirable conduct of the masses who, in paying tribute to the genius and worth of George Stephenson, have reflected no slight credit upon themselves.

THE RAILWAY AND GENERAL TRAFFIC.

Not to Newcastle alone was the interest evinced in the events of the day confined. Among the inhabitants of the surrounding towns and district, a feeling of high expectation and curiosity had been aroused, and the result was a correspondingly large influx of visitors into the town on the 9th of June. As to the extent of traffic on the North Eastern Railway, some idea may be formed from the fact that the receipts of the Company from passengers, for the week ending that in which the centenary occurred, exceeded by £15,605 those of the corresponding period of last year. In addition to the numerous relief trains run on the local branches, special excursion trains were arranged from Waterhouses, Ferryhill, Bishop Auckland, York, Leeds, Saltburn, Stockton, Shildon, Richmond, Barnard Castle, Berwick, Carlisle, Benfieldside, and Hartlepool. The whole of these excursions were great successes, with the exception of that from Waterhouses, from which place only a little over 200 people left. The probability is that between

who took part in the celebration of the Stephenson Centenary (Applause.) The conduct of the people was beyond all praise. (Hear, hear.) He intended, through the newspapers, to convey his thanks and his satisfaction to the whole of the town, and to the whole district, for the manner in which Thursday was observed. Their proceedings on that day should be looked to as an example by the whole country and by the whole world. (Hear, hear.)—On the motion of the Mayor, a vote of thanks was passed to the secretaries of the draught horse procession, Messrs. Hindhaugh and Oubridge; on the proposition of Mr. B. Ellis, a similar vote was awarded to the judges, Messrs. Clement Stephenson, Jacob Wilson, B. Spraggon, Councillor Green, and Councillor Jackson; and on the motion of Councillor Green, the thanks of the meeting were also accorded the marshals of the procession, Messrs. Oubridge, Elphick, Tindall, Crow, Harrison, Gradon, Moscrop, and Hunter.—The Sheriff proposed a vote of thanks to the Mayor for presiding, and in doing so referred to the great services given by Mr. J. H. Amos in organising the centenary celebration.—The motion was carried, and three cheers for the Mayor brought the proceedings to a close.

MAYORAL MANIFESTO.

In compliance with the intimation he had made at the meeting in the Town Hall, the Mayor issued the following manifesto in the form of an advertisement in the local papers:—

GEORGE STEPHENSON CENTENARY.

The Mayor of Newcastle tenders his most sincere thanks to the inhabitants of Newcastle and surrounding neighbourhood, for the enthusiastic and energetic response they made to his appeal to them to do honour to the memory of George Stephenson on the centenary of his birth. The magnificent and beautiful street decorations, the horse and trades processions, and the excellent and exemplary behaviour of the vast crowds during the whole day, all contributed to make the celebration a great success, befitting the memory of Stephenson, and were earnest evidences of the public desire to render the fetes worthy of the town of Newcastle, so intimately identified with his name.

The Mayor also cordially thanks all those associated with him in the arrangements for the celebration, and the management and carrying out of the different details of the day's programme, and it is a source of great satisfaction to him, as it must be to them, to look back on the success with which their efforts were crowned.

Town Hall, Newcastle, 11th June, 1881.

THE TYNE COMMISSIONERS AND THE CELEBRATION.

As their contribution to the festivities of the day, the Tyne Improvement Commissioners chartered the steamer *Charles Attwood* for a trip down the river. The vessel, as already stated, commenced its journey at Scotswood, where a number of gentlemen, after returning from the visit to Wylam, got on board. Many of these made only a short stay on the steamer, landing at the Skinners' Burn in order to take part in the demonstration proceedings. A large number, however, amongst whom were Mr. J. C. Stevenson, M.P., (chairman of the Commissioners), proceeded with the vessel to view the different works of the Commission as far as the mouth of the Tyne. While sailing from Scotswood to Newcastle the company partook of an excellent luncheon on board.

DEPARTURE OF THE BELGIAN DEPUTATION.

On the day succeeding the great demonstration, MM. F. Van der Sweep, Leon Bika, and Henri Goudry, the Belgian deputies, were treated by the Chairman of the Tyne Commissioners to a trip down the river in the Commissioners' yacht. They were accompanied on board by Mr. P. J. Messent, Mr. John Rogerson, Mr. T. J. Bewick, Ald. Cail, Mr. George Palmer, M. Leo Caubet (French Consul), and Mr. George Reid (Belgian Consul). In going down the river, the party landed at Jarrow, where they were shown the whole of Messrs. Palmers' Shipbuilding Works. They also called at the Coble Dene Dock, and afterwards proceeded to the mouth of the river, where they inspected both the North and the South Piers. Having viewed the whole of the river works, dinner was partaken of at the Bath Hotel, Tynemouth. The guests were highly pleased with everything they saw, and before leaving the district they paid parting visits to the Mayor, Sheriff, and Town Clerk, Sir William Armstrong, Mr. George Robert Stephenson, and Mr. C. B. Reid (former Belgian Consul), and other gentlemen. To all they expressed their gratification for the warm way in which they had been received, and the attention that had been paid to them during their stay in Newcastle. The distinguished visitors took their departure from the Central

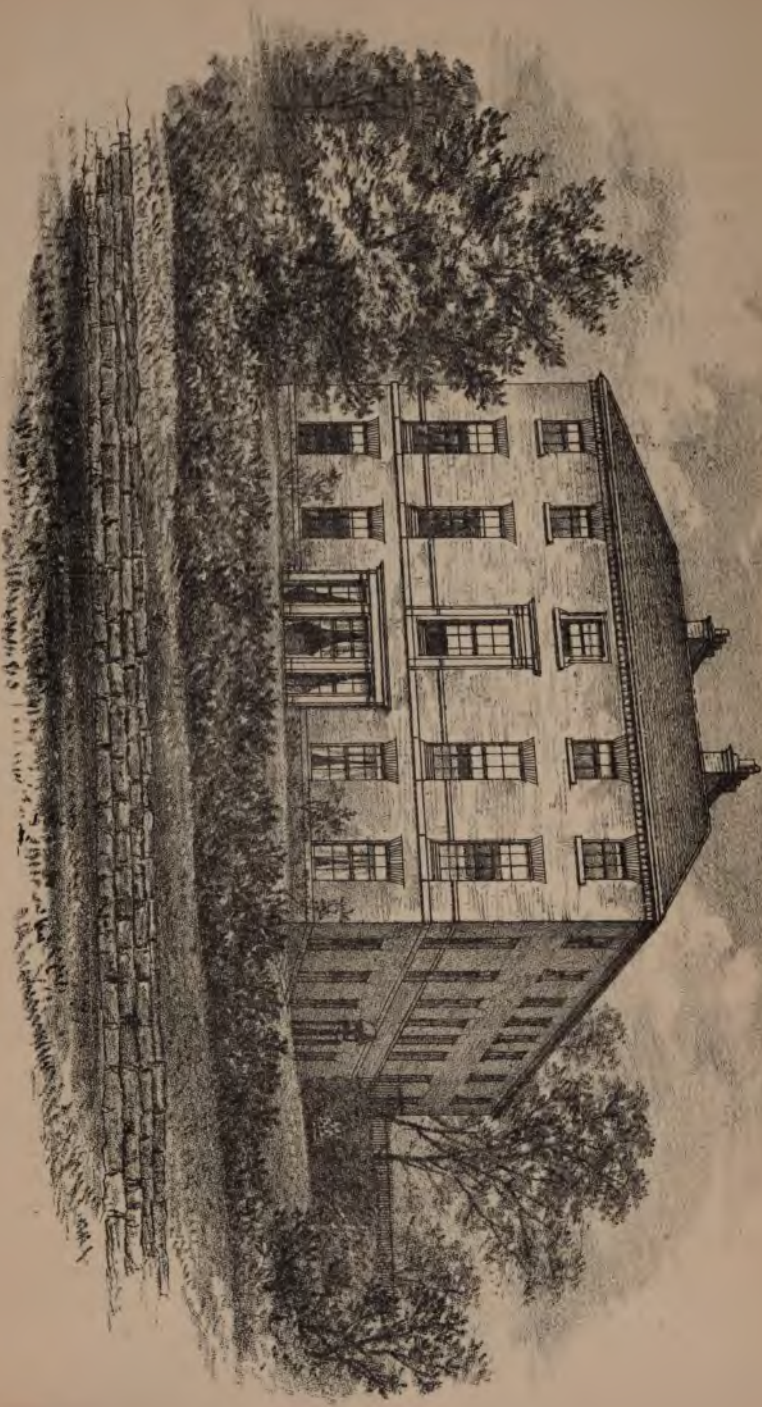
Station with the 7.8 p.m. express on the 13th of June, for York, *en route* for Brussels.

LOCAL TOWNS.

As has already been mentioned, the Centenary was observed as a holiday at North and South Shields. The shipping in Shields harbour and several of the public buildings were decorated with flags. During the day the bells of St. Hilda's Church rang merry peals. There were decorations, on a more or less extensive scale, at the stations at Darlington, Ferryhill, Hexham, and Fence Houses. The display at the last of these places especially was greatly admired by the passengers, and scores of people paid a visit to the scene. The season was also observed at the more remote town of Whitehaven, where holiday was kept on the 10th of June. The festival organised consisted of a representative procession parading the principal streets of the town, a pic-nic in the drill ground, a public tea in the Refuge School, and a meeting and entertainment in the evening. A good many flags were displayed in various parts of the town and on the shipping. In the course of the proceedings, it was stated that, in 1843, Lord Lonsdale gave instructions to Messrs. Armistead and Musgrave for making arrangements for laying down a railway between Whitehaven and Maryport, of which George Stephenson was the engineer.

A STEPHENSON PRIZE ESSAY COMPETITION.

An interesting presentation ceremony took place at the National Schools, Wylam, in connexion with the Centenary. The recipients were Thomas Robson Heppell and Annie Sharpe, two of the children attending the schools. The prizes were offered for essays on the "Life of George Stephenson." Heppell's prize, which was given by the Wylam Bridge Company, consisted of a free pass for life across the company's bridge, in the shape of a splendid silver medal, while Sharpe received an excellent copy of "The Heroes of Great Britain in Peace and War." The prizes were presented by Dr. Atkinson, of Wylam, and the ceremony took place before a large assemblage.



TAPTON HOUSE, CHESTERFIELD, THE RESIDENCE OF
GEORGE STEPHENSON, AND WHERE HE DIED.

CELEBRATION AT CHESTERFIELD.

As having been also closely associated with the eminent engineer, Chesterfield did not ignore the centenary of his birth. In fine weather the event was fittingly celebrated in that town on the 9th of June, the inhabitants, by their exertions in the way of decorations, and other tokens, evincing their appreciation of the lifework of Stephenson. At a quarter past ten, the Mayor of Chesterfield and the Corporation, the County and Borough Magistrates, the Council and members of the Chesterfield and Derbyshire Institute of Engineers, a large number of trade, friendly, and temperance societies and bands assembled in the Market Square, which was very gaily adorned with flags, banners, and fir trees, and marched through several of the principal streets to Holy Trinity Church. The sacred edifice was tastefully decorated. A white silk pall, on which were placed several wreaths of flowers, was placed over the tomb of George Stephenson, which is situated within the communion rails of the church, whilst the pew which the great engineer formerly occupied was left vacant, and adorned with flowers and evergreens. A portion of the morning service having been gone through, the Rev. C. Sargent ascended the pulpit and delivered an eloquent address. At the close of the service, the Mayor planted a memorial tree in the churchyard, and the procession then returned to the Market Square, where it broke up. In the afternoon, the friendly, trade, and other societies went to Tapton Hall Park, formerly occupied by Stephenson, and there spent the afternoon. The annual meeting of the Institute of Engineers was held in the Stephenson Memorial Hall, under the presidency of Lord Edward Cavendish, M.P. At four o'clock, a combined banquet of the Institute of Engineers and the public was held in the Assembly Room of the Market Hall, presided over by Lord Edward Cavendish, M.P., who was supported, amongst others, by Mr. F. Swanwick, J.P., and Mr. C. Binns, J.P., both friends of Stephenson. During the evening, congratulatory telegrams were interchanged between the banquets in Chesterfield and Newcastle. There was also a successful *conversazione* and promenade concert in the Stephenson Memorial Hall, and at dusk a grand display of fireworks, on a scale similar to that at Newcastle, was given by Mr. Pain, of London.

FESTIVAL AT THE CRYSTAL PALACE.

A festival was held at the Crystal Palace, Sydenham, in connexion with the hundredth anniversary of the birth of George Stephenson, under the auspices of the committee of the Railway Orphanage at Derby, in aid of which the proceeds are to be applied. In the institution at the present time upwards of a hundred children are clothed, maintained, and educated ; but the claims for admission are so many that the addition of a new wing, capable of accommodating a hundred more children, has been deemed necessary. This new wing it is proposed to associate with the centenary of the father of English railways. The chilly, bleak, almost wintry weather prevailing in the metropolis seriously militated against the success of the festival ; and notwithstanding the full programme of amusements, the extra attractions afforded by the international wool exhibition, and a special exhibition of railway appliances of great interest, the attendance was comparatively small, for at three o'clock probably not more than 15,000 persons had passed through the turnstiles in place of 40,000 expected. The athletic sports of the S. Division of police, and music performed by numerous brass bands were the principal out-door attractions, while within the Palace the wool exhibits in the south, and the railway exhibits in the north nave, divided the interest between them.

THE HOTSPUR CLUB.

A very large and enthusiastic meeting of the members of the Hotspur Club (a society consisting chiefly of natives of the North resident in the Metropolis), sat down to dinner at the Portugal Hotel, Fleet Street, London, to celebrate the centenary of George Stephenson. Mr. W. Robson, engineer of the Tower, and late of Newcastle, occupied the chair, and Mr. Henry Stokoe the vice-chair.

AMALGAMATED SOCIETY OF RAILWAY SERVANTS.

The members of the Amalgamated Society of Railway Servants celebrated the centenary of George Stephenson by holding their

ninth anniversary dinner at the Freemasons' Tavern. Mr. Thomas Brassey, M.P., presided, and was supported by Baron de Ferrières, M.P., Mr. Macliver, M.P., Sir Ughtred Kay-Shuttleworth, Dr. Tristram, Q.C., Captain Cameron, and others. There was a large attendance of railway servants and others.

I T A L Y.

According to the correspondent of the *Times*, at Rome, the event was celebrated there in a manner most gratifying to all Englishmen. The papers contained eulogistic notices of Stephenson's career, and the benefit which his talents and labour had conferred on mankind, and at the railway station a commemorative tablet, placed in a most conspicuous situation, and erected at the expense of the employés, was uncovered. The ceremony was most interesting. The station was gay with flags and crowded with spectators. Two of George Stephenson's young men, who had worked in his factory 46 years ago, viz., John Elliott, now cavaliere and chief inspector of the Florence section of the Roman lines, and John Cook, chief enginesmith, had come to Rome to be present on the occasion. An admirable discourse, especially addressed to the workmen assembled was delivered by Cavaliere Agazzi, who gave a biographical sketch of Stephenson and all he had accomplished; and lastly the English Ambassador, Sir A. Paget, in a few graceful words said he was sure he was only reflecting the sentiments of his countrymen in expressing his deep gratification on seeing the manner in which, at the central railway station of Rome, the capital of Italy, the memory of his illustrious countryman, the immortal George Stephenson, had been honoured, and he thanked the directors for having given him the satisfaction of being present. He expressed his most sincere good wishes for the well-being and prosperity of the Italian railways. The inscription on the tablet reads as follows:—"In this Rome, from whence wondrous roads proceed to the empire of the world, the employes of the Roman railways, on the 9th of June, 1881, worthily commemorated the centenary of George Stephenson, who opened still more wondrous roads to the brotherhood of the nations, and whose virtues inspiring to great works have left an undying example."

GERMANY.

The Berlin correspondent of the *Daily News* telegraphed:—"Several of the Berlin papers publish long articles in honour of the hundredth anniversary of the birth of George Stephenson." The *Boersen Courier* says:—"He has done more towards the civilization of the world than an Alexander, a Napoleon, or a Bismarck. He at least has given to the human race a gift from which all nations can benefit." Another paper says:—"England has erected several memorials to Stephenson, but Germany, unfortunately, has not a single one."

NEWCASTLE COUNCIL AND THE CELEBRATION.

As it had its inception, so the movement found fitting consummation within the walls of the Town Hall. At a meeting of the Newcastle Council, held in the usual place, on the 15th of June, the Mayor embraced the first opportunity that had presented itself to refer publicly to certain matters bearing upon the recent celebration of the Stephenson Centenary. In the first place he asked the Council to record a vote of thanks to the directors and officials of the North-Eastern Railway Company for the great help they had rendered in connexion with the celebration. (Applause). He also proposed that the thanks of the Council be given to the General Centenary and Branch Committees, to the Town Moor Management Committee, of which Ald. Hamond was chairman, for the services they rendered in providing a display of fireworks in the Leazes Park—(applause)—and the committee of the Literary and Philosophical Society for granting the use of their rooms; to the trustees of the Wood Memorial Hall for granting the use of the hall; to the chairman and members of the River Tyne Commissioners for the very great assistance they rendered, and for administering to the comforts of the visitors on board their steamer—(applause); to the honorary secretaries, Messrs. Holmes, Bunning, Amos, and Aldis; to Messrs. Oubridge and Councillor Ellis for their services in connexion with the procession of horses; and to Ald. Potter for attending with the Volunteers. He could scarcely tell the Council how much he had been indebted to the honorary secretaries for their services, and

especially to Mr. Amos for the skill and untiring zeal which he had displayed in carrying out all the details connected with the celebration. (Applause.) He must say that he had had no idea that such thorough and efficient assistance could be afforded by one man as had been rendered by Mr. Amos on that occasion. (Applause.) Mr. Palmer, M.P., had offered to present to the Corporation the second locomotive engine made by or under the superintendence of George Stephenson, on condition that it was placed in a proper situation. He (the Mayor) thought the engine might be placed in Elswick Park, where the models of the Stephenson Monument now were; and he suggested that this question be referred to the Parks Committee. Comparatively short notice was received of the intended visit of the representatives of the King of the Belgians. It occurred to him to place the Mansion House at the disposal of the Belgian representatives, but, unfortunately, the house was undergoing very great repairs necessary to the proper sanitary condition of the house, and was in such a condition that it was impossible for them to live in the house with any comfort; and, in that difficulty, Ald. Cail placed his house at their disposal. (Applause.) The Belgian gentlemen decided to remain at the hotel, but Ald. Cail showed them every attention and entertained them hospitably at his own house. Ald. Cail devoted the three days they were in Newcastle to showing them everything of interest in the district. (Applause.) Ald. Cail showed to the Belgian representatives the attention which it was not, under the circumstances, in his (the Mayor's) power to do; and he felt that the Council owed a debt of gratitude to Ald. and Mrs. Cail. His Worship concluded by moving a vote of thanks to the persons he had named, and the motion was agreed to unanimously.—Mr. Ald. Hamond, on behalf of the Town Moor Management Committee, thanked the Council for the vote of thanks, and said the committee had, by the orderly conduct of upwards of 30,000 people who visited the Leazes Park on the 9th inst., been amply repaid for any services they had rendered. The committee would, from the money taken at the park on the 9th inst., hand over at least £250 towards the Stephenson Memorial College. (Applause.)

Thus may be said to have appropriately brought to a close the

incidents of a day which, as the Centenary of George Stephenson, of railway reputation, will hereafter be looked back to as one of the most bright and cheerful chapters in the history of the old town of Newcastle-upon-Tyne.



M. AND M. W. LAMBERT, GREY STREET, NEWCASTLE-UPON-TYNE.

1881.





3 6105 024 611 597

STANFORD UNIVERSITY LIBRARIES
STANFORD AUXILIARY LIBRARY
STANFORD, CALIFORNIA 94305-6004
(650) 723-9201

salcirc@sulmail.stanford.edu
All books are subject to recall.
DATE DUE





3 6105 024 611 597

STANFORD UNIVERSITY LIBRARIES
STANFORD AUXILIARY LIBRARY
STANFORD, CALIFORNIA 94305-6004
(650) 723-9201

salcirc@sulmail.stanford.edu
All books are subject to recall.
DATE DUE



11

11

Stanford University Libraries



3 6105 024 611 597

STANFORD UNIVERSITY LIBRARIES
STANFORD AUXILIARY LIBRARY
STANFORD, CALIFORNIA 94305-6004
(650) 723-9201
salcirc@sulmail.stanford.edu
All books are subject to recall.
DATE DUE

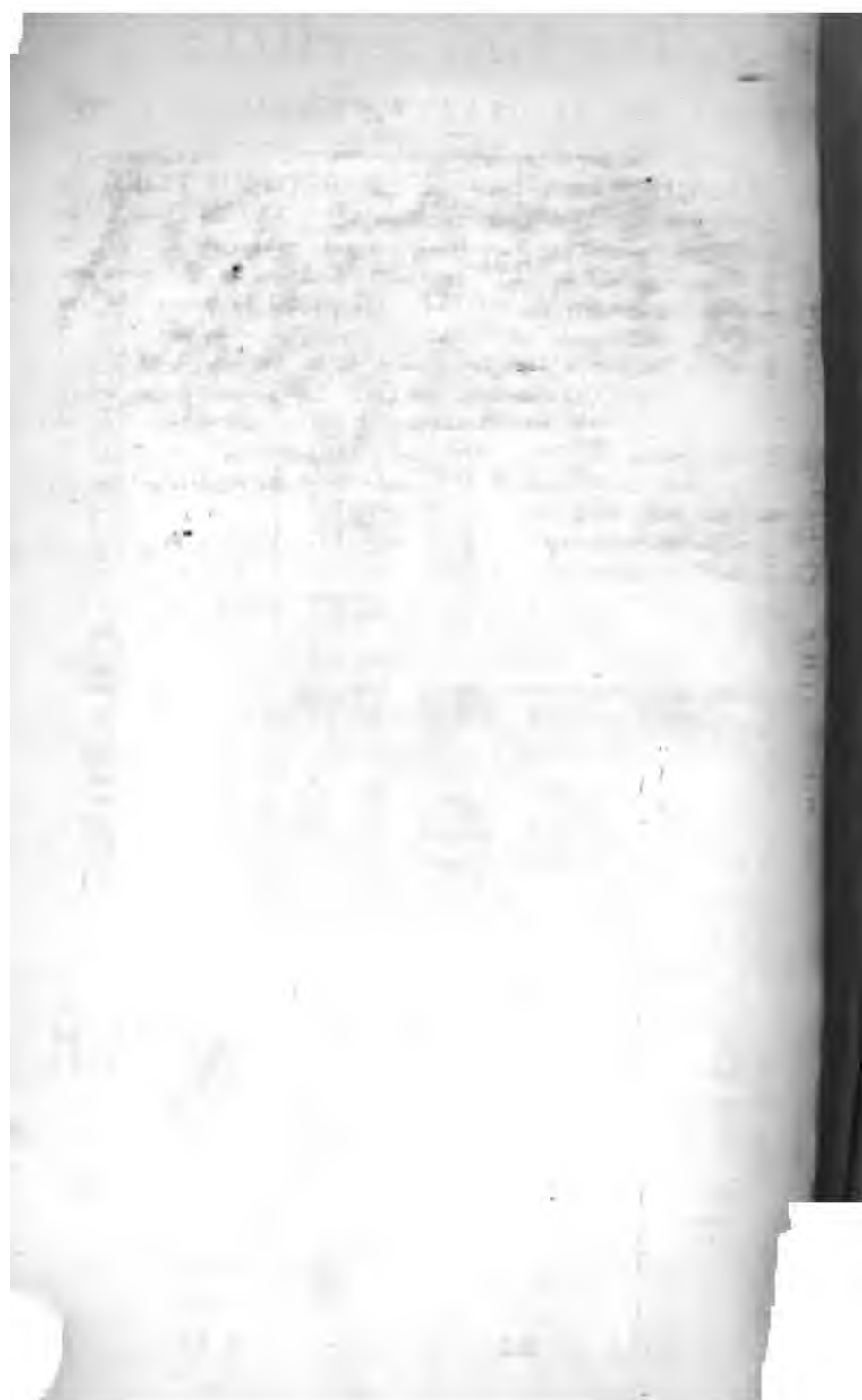




3 6105 024 611 597

STANFORD UNIVERSITY LIBRARIES
STANFORD AUXILIARY LIBRARY
STANFORD, CALIFORNIA 94305-6004
(650) 723-9201

salcirc@sulmail.stanford.edu
All books are subject to recall.
DATE DUE



3 6105 024 611 597

STANFORD UNIVERSITY LIBRARIES
STANFORD AUXILIARY LIBRARY
STANFORD, CALIFORNIA 94305-6004
(650) 723-9201

salcirc@sulmail.stanford.edu
All books are subject to recall.
DATE DUE

STANFORD UNIVERSITY
LIBRARY
Stanford, California

HOUSEHOLD REMOVAL

TO AND FROM ALL PARTS OF
THE UNITED KINGDOM & CONTINENT

HUDSON'S



HOUSEHOLD FURNITURE, PICTURES, &c., PACKED AND SHIPPED TO
ESTIMATES FREE.

HUDSON'S

FIREPROOF FURNITURE DEPOSIT

VICTORIA STATION, LONDON, S.W., & BRIGHTON

ECOSCEVEPHORON.